

TRAFFIC STUDY

SHEA BAKER RANCH

LAKE FOREST, CALIFORNIA

This traffic study has been prepared under the supervision of
Les Card, P.E., T.E.

Signed



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T R A F F I C S T U D Y

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
INTRODUCTION	2
Project Description.....	2
SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT (SEIR) ANALYSIS	5
LAKE FOREST TRANSPORTATION MITIGATION ANALYSIS	6
Study Area Boundary.....	6
LFTM Program	6
PERFORMANCE CRITERIA	7
EXISTING CONDITIONS	8
Existing Site Uses	8
Existing Conditions.....	8
ANALYSIS METHODOLOGY/APPROACH.....	11
FUTURE TRAFFIC CONDITIONS.....	11
Cumulative (Project Buildout Year) Baseline Traffic Volumes and LOS.....	11
PROJECT IMPACTS	11
Trip Generation	11
Trip Distribution and Assignment.....	13
EXISTING TRAFFIC WITH PROPOSED PROJECT.....	13
FUTURE TRAFFIC WITH PROPOSED PROJECT	16
REQUIRED MITIGATION MEASURES.....	16
Bake Parkway/Irvine Boulevard-Trabuco Road	19
Bake Parkway/Jeronimo Road.....	19
CONSTRUCTION IMPACTS	19
PROJECT SITE EVALUATION - 2030 PLUS PROJECT CONDITION	19
SPECIAL ANALYSES	21
Project Access and Internal Circulation.....	21
Sensitivity Analysis	28
RECOMMENDATIONS	29
Project Access	29
CONCLUSIONS	30

APPENDICES

- A: SCOPE OF WORK
- B: IRVINE TRAFFIC SENSITIVITY ANALYSIS, MARCH 24, 2011
- C: LFTAM EXISTING AND FUTURE (2015 AND 2030) TRAFFIC FORECASTS
- D: HCM WORKSHEETS
- E: SIGNAL WARRANT WORKSHEETS
- F: ICU WORKSHEETS

FIGURES AND TABLES

FIGURES

Figure 1: Project Location and Study Area Intersections.....	3
Figure 2: Project Site Plan.....	4
Figure 3: Regional Project Trip Distribution.....	15
Figure 4: Project Trip Assignment	23
Figure 5: Cumulative (Project Buildout Year) Peak-Hour Volumes.....	24
Figure 6: Cumulative (Project Buildout Year) Plus Project Peak-Hour Volumes	25
Figure 7: 2030 Peak-Hour Volumes.....	26
Figure 8: 2030 Plus Project Peak-Hour Volumes.....	27

TABLES

Table A: Shea Baker Ranch Area Supplemental Trips	5
Table B: Existing Baseline ICU Summary.....	9
Table C: Existing Plus Alton (No Project) ICU Summary.....	10
Table D: Cumulative (Project Buildout Year) Baseline ICU Summary.....	12
Table E: Shea Baker Trip Generation Summary	14
Table F: Existing Plus Project ICU Summary.....	17
Table G: Cumulative (Project Buildout Year) Plus Project ICU Summary	18
Table H: Cumulative (Project Buildout Year) Plus Project and LFTM Improvements ICU Summary.....	20
Table I: 2030 Plus Project (Project Access Intersections).....	21
Table J: Project Unsignalized Intersection LOS Summary	22
Table K: Signalized Project Intersection LOS Summary	28
Table L: Project Driveway/Rancho Parkway Exclusive Access LOS Summary	29

TRAFFIC STUDY SHEA BAKER RANCH

LSA Associates, Inc. (LSA) has prepared the following analysis to identify traffic impacts resulting from development of the Shea Baker Ranch Area (SBRA) plan in the City of Lake Forest (City). The intent of this analysis is to satisfy California Environmental Quality Act (CEQA) compliance for build out of the project site. Traffic forecasts were prepared for this study by Austin-Foust Associates, Inc. (AFA) from the latest version of the Lake Forest Traffic Analysis Model (LFTAM). A detailed Scope of Work was processed through the City and approved by the City Public Works Director. This Scope of Work is provided in Appendix A.

EXECUTIVE SUMMARY

The purpose of this analysis is to determine the potential traffic impacts associated with the development of the Shea Baker project site (project) in the City. The project site is located along the west side of Bake Parkway and along the east and west sides of the planned extension of Alton Parkway north of Commercentre Drive. Alton Parkway is assumed to be built as a six-lane roadway by 2015. The Alton Parkway extension is currently under construction between Irvine Boulevard in the City of Irvine and Towne Centre Drive in the City of Lake Forest. South of Commercentre Drive, the extension is being built as a six-lane roadway. North of Commercentre Drive (within the City of Lake Forest), the extension is being built as a four-lane roadway. As part of the project, the Lake Forest portion of Alton Parkway will be widened to six lanes and Rancho Parkway (South) will be extended from its current terminus to Alton Parkway. The project site is currently vacant except for nurseries and recreational vehicle storage. The site is designated as Residential Mixed-Use in the City of Lake Forest's General Plan. This analysis is consistent with the City's General Plan Amendment within the Opportunities Study Area Environmental Impact Report (EIR) (OSA EIR) study area approved in 2008.

For purposes of the environmental analysis for the SBRA Project currently under review by the City, this traffic study analyzes the impacts of the SBRA Project in comparison to the impacts for the SBRA Project Site that was prepared for the OSA EIR certified by the City in 2008. The current proposed SBRA Project's land uses generate fewer trips than the previously analyzed land uses for the project site. Therefore, the SBRA Project will not result in any new nor increase the severity of any impacts previously identified in the OSA EIR, and for which mitigation measures were adopted. In fact, because fewer trips will be generated by the SBRA Project, the impacts will all be less than those previously analyzed in the OSA EIR.

Additional analysis is also presented to satisfy the Lake Forest Transportation Mitigation Program and the questions raised by City staff. This portion of the study focuses on the a.m. peak-hour and p.m. peak-hour levels of service (LOS) at 43 intersections in the City of Lake Forest. Project impacts were determined based on analysis of the following scenarios:

1. Existing conditions
2. Existing Plus Project
3. Cumulative (Project Buildout Year) without Project
4. Cumulative (Project Buildout Year) Plus Project
5. 2030 Plus Project (project access intersections)

Based on the results of this traffic study, the project will impact the surrounding roadway system. Evaluation of intersection LOS shows that addition of project traffic to cumulative (Project Buildout Year) traffic volumes will significantly impact two study area intersections that are part of the Lake Forest Transportation Mitigation (LFTM) Program. However, the project impacts would be mitigated by implementation of the planned improvements of the LFTM program. The required LFTM improvements are identified for each intersection in this traffic study. Project impacts will be mitigated by the SBRA project through payment of the traffic impact fee identified for the project in the LFTM program.

INTRODUCTION

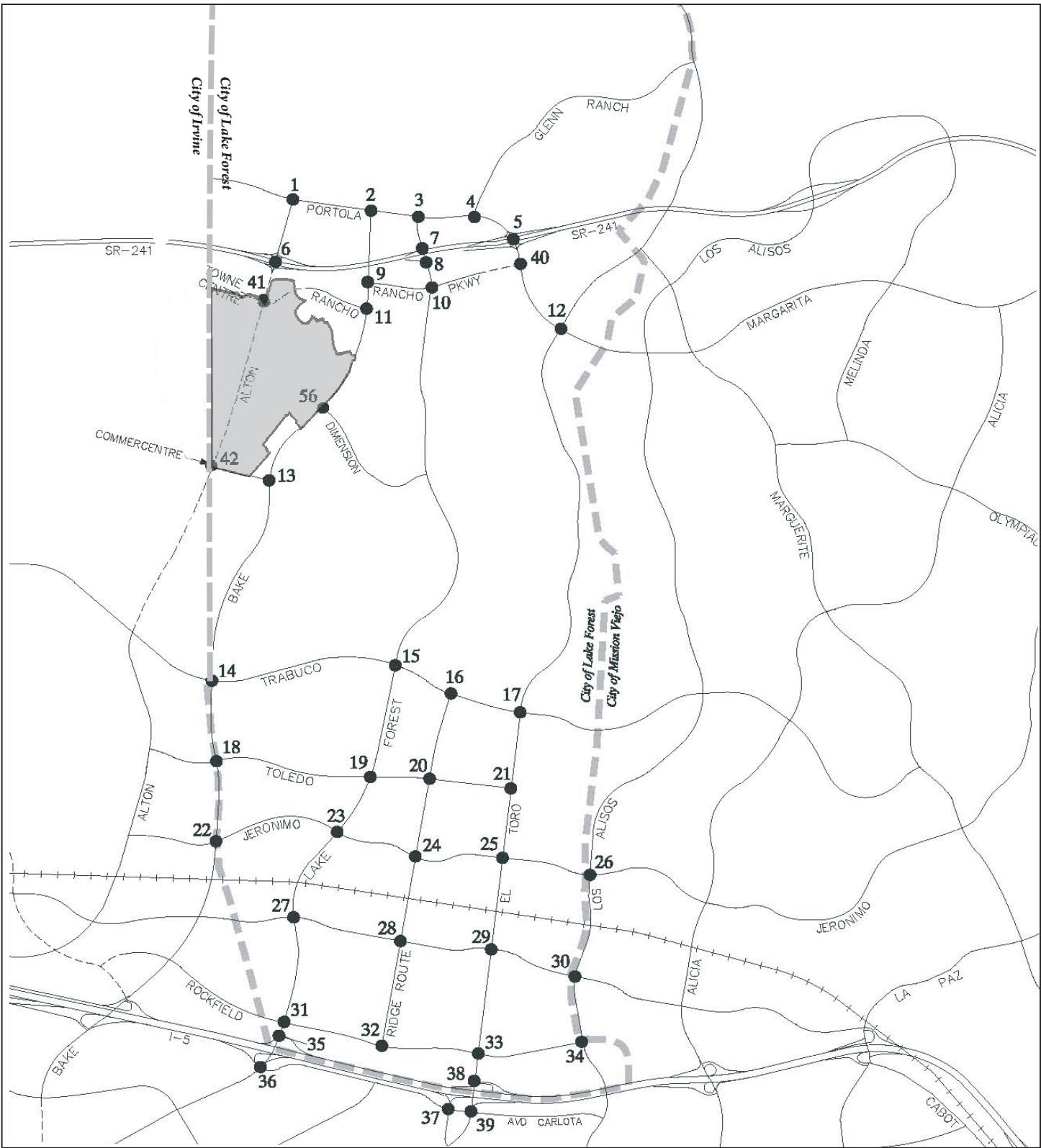
The Shea Baker Ranch project site is one of the six vacant parcels analyzed in the OSA EIR. As part of the OSA EIR, the City established the LFTM Program, to allocate the costs of transportation improvements needed to serve projects within the OSA EIR study area and Citywide. For purposes of the environmental analysis, the environmental baseline is the existing, undeveloped condition of the SBRA Project site. However, because the City had previously analyzed potential traffic impacts for the SBRA Project site in the OSA EIR, this traffic study compares the trips generated by the current proposed Project against the previously proposed project that was analyzed in the OSA EIR.

Per the City's Transportation Mitigation Program requirements, site-specific traffic studies will be required for each of the vacant properties in the OSA EIR to determine where traffic signals, lane augmentation, stop signs and other localized improvements will be required. These types of improvements are "Project Features", unique to each of the vacant parcels that comprise the OSA EIR. This level of study takes place when subdivision maps are submitted for the precise development of each property and a site-specific environmental document is prepared. The City's General Plan and the OSA EIR include performance criteria to which all intersections must conform.

It should be noted that an analysis of the project in a future 2030 condition is limited to assessing the project access intersections, and an area-wide impact analysis is not proposed as part of this work effort. This General Plan-level analysis was conducted as part of the General Plan Amendment and OSA EIR in 2008. The project does not propose an amendment to the City's General Plan to increase the number of residential units or commercial square footage.

Project Description

The proposed project site is bounded by State Route 241 (SR-241) to the north, Commercentre Drive to the south, Bake Parkway to the east, and the Borrego Wash to the west. The project location is illustrated in Figure 1, and the project site plan is illustrated in Figure 2. The project proposes 2,379



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FIGURE 1

LEGEND

- Intersection Location
- Project Area

NOT TO SCALE



SOURCE: City of Lake Forest SBRA Traffic Forecast Data

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Shea Baker Ranch
Project Location and Study Area Intersections

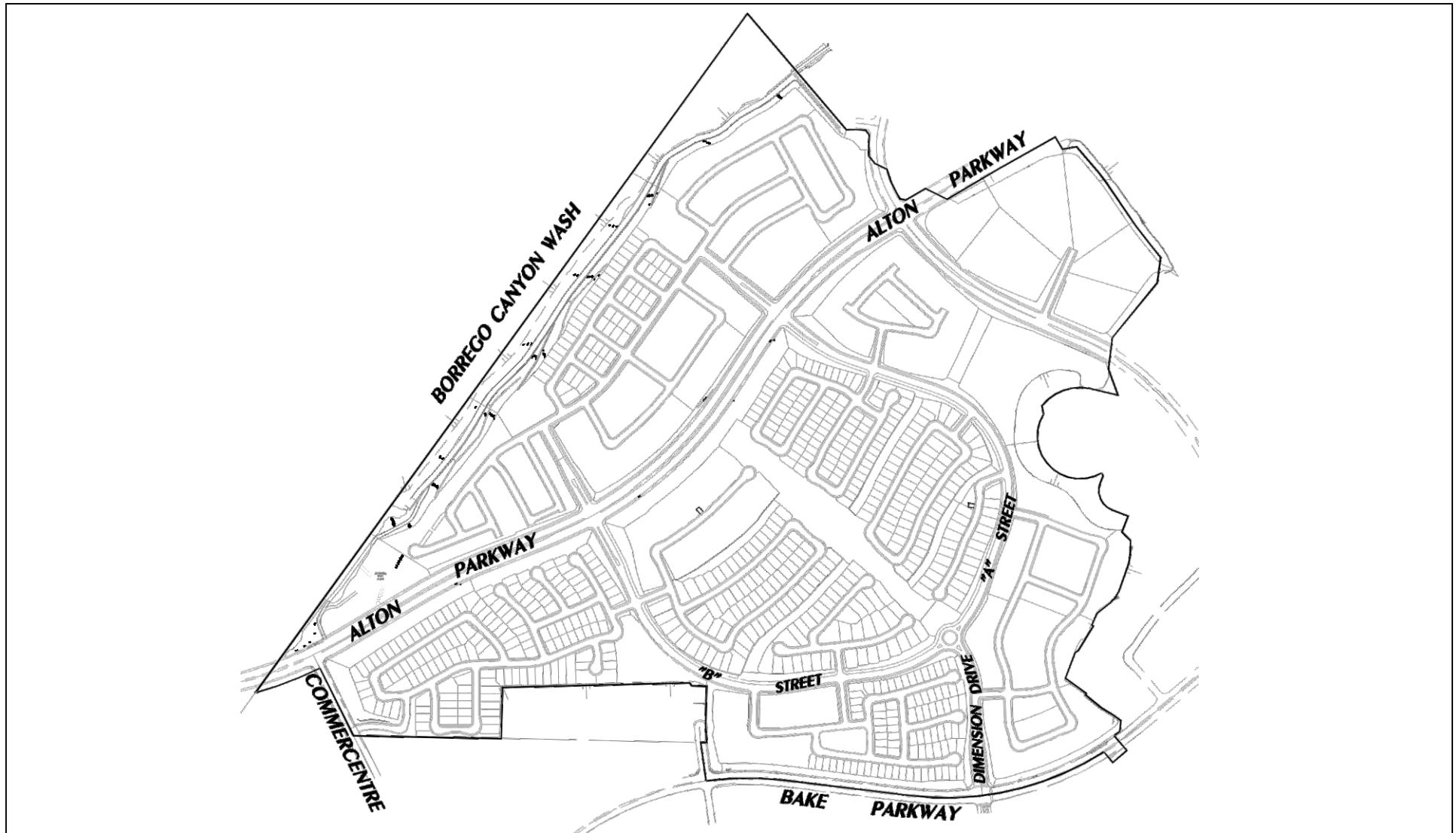


FIGURE 2

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FEET

Shea Baker Ranch
Site Plan

dwelling units (DU), a 6.9 acre park, and 25,000 square feet (sf) of neighborhood retail use on vacant land. The proposed access into and out of the parcel at the northeast corner of the Alton Parkway/Rancho Parkway intersection is undetermined at this time. A sensitivity analysis is provided in this report to evaluate the ingress and egress alternatives for this parcel. Two roadway improvements are included as project design features. The first is the widening of the Lake Forest portion of the Alton Parkway extension from four to six lanes. The second is the extension of Rancho Parkway (South) from its current terminus to Alton Parkway. For purposes of this traffic study, the project buildout year is 2015.

SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT (SEIR) ANALYSIS

The City of Lake Forest is preparing a supplemental environmental impact report (SEIR) for the revised Shea Baker Ranch Area project. The previous OSA EIR analyzed the impacts of development on the Shea Baker Ranch Area and five additional vacant properties within the City. For purposes of this SEIR traffic study analysis, the trip generation and impacts of the current proposed SBRA Project are analyzed against the traffic impacts identified in the OSA EIR.

The previous OSA EIR analyzed the impacts of constructing 2,815 residential dwelling units, 120,000 sf of commercial space, 200,000 sf of business park, and a 26-acre park. Table A depicts the Shea Baker Ranch Area trip generation analyzed in the OSA EIR and compares that to the currently proposed land uses. For the purposes of the SEIR, the project produces 10,795 fewer daily trips, 690 fewer trips in the a.m. peak hour, and 981 fewer trips in the p.m. peak hour than the previous EIR. As a result, the project will not result in any additional impacts above and beyond the impacts identified in the OSA EIR.

Table A: Shea Baker Ranch Area Supplemental Trips

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
OSA EIR – Alternative 7 Trip Generation									
Single-Family Detached	889	DU	8,508	168	498	666	569	329	898
Condominium	1,426	DU	11,622	242	714	956	642	470	1,112
Apartment	500	DU	3,360	50	205	255	200	110	310
Commercial	120	TSF	7,645	112	72	184	319	346	665
Park	26	Acre	41	0	0	0	1	1	2
Business Park	200	TSF	2,552	240	46	286	60	198	258
Total			33,728	812	1,535	2,347	1,791	1,454	3,245
Shea Baker Ranch Area Trip Generation									
Single-Family Detached	1,144	DU	10,948	215	644	858	728	428	1,155
Condominium	641	DU	5,224	109	321	429	288	212	500
Apartment	594	DU	3,992	61	242	303	239	129	368
Neighborhood Retail	25	TSF	2,758	40	26	66	115	125	240
Community Park	6.9	Acre	11	0	0	0	0	0	0
Total			22,933	424	1,232	1,657	1,371	893	2,264
Trip Difference			-10,795	-388	-303	-690	-420	-561	-981

ADT = average daily traffic

EIR = Environmental Impact Report

DU = dwelling unit

TSF = total square feet

AFA confirmed that the original study area identified in the OSA EIR is consistent with the latest vacant land proposals and updated land use in adjacent cities (e.g., Irvine). To compile the traffic data, AFA used the LFTAM to obtain the differential between the original (in 2005) and the latest Lake Forest vacant land development assumptions including the SBRA project update. The differential was then applied to the latest ITAM 8.4-10 Post-2030 forecasts resulting in the traffic volumes for the extended study area. A memorandum prepared by AFA describing these findings is included as Appendix B to this traffic study. Their analysis concluded that the proposed project would not result in impacts outside of the City of Lake Forest above and beyond those identified in the OSA EIR.

LAKE FOREST TRANSPORTATION MITIGATION ANALYSIS

In addition to the analysis to satisfy CEQA requirements for the SEIR, additional analysis of this project is required by City staff to satisfy the Lake Forest Transportation Mitigation Program (LFMC 7.19). This study analyzes the a.m. and p.m. peak-hour LOS at study area intersections. Project impacts were evaluated for the following scenarios:

1. Existing conditions
2. Existing Plus Project
3. Cumulative (Project Buildout Year) without Project
4. Cumulative (Project Buildout Year) Plus Project
5. 2030 Plus Project (project access intersections)

Study Area Boundary

The purpose of this analysis is to satisfy provisions of the Lake Forest Transportation Mitigation Program and specific questions raised by City staff. Consistent with this purpose, the study area for this analysis (as depicted in Figure 1) includes the same Lake Forest intersections as the OSA EIR (primary study area) and adds the intersection of Bake Parkway/Dimension Drive, which provides access to the project.

LFTM Program

As previously stated, the City of Lake Forest established the LFTM Program, as part of the OSA EIR, to allocate the costs of needed transportation improvements. LFTM identifies a set of citywide transportation improvements designed to maintain adequate LOS on the City's arterial street system in the General Plan Buildout condition. This includes the planned extension of Alton Parkway from Irvine Boulevard to Towne Centre Drive, which is expected to be constructed by 2015. The extension of Alton Parkway is currently under construction. LFTM improvements were developed using forecasts from the LFTAM traffic model and assume higher intensity land use on the SBRA site than currently proposed. The project will contribute to the need for the LFTM improvements. This study will identify which improvements are needed with implementation of the Shea Baker Ranch in the project buildout year.

The study area consists of the same 43 intersections within the City included in the LFTM Program. The study area is illustrated in Figure 1.

PERFORMANCE CRITERIA

According to the City and the Orange County Growth Management Plan, LOS at an intersection is considered to be unsatisfactory when the ICU exceeds 0.90 (LOS D). At several study area intersections a different threshold has been adopted. The LOS is considered to be unsatisfactory at the following intersections when the Intersection Capacity Utilization (ICU) exceeds 1.00 (LOS E):

- El Toro Road/Trabuco Road (Orange County Congestion Management Program [CMP] intersection)
- El Toro Road/Interstate 5 (I-5) northbound ramps (Orange County CMP intersection)
- El Toro Road/Avenida de la Carlota (City of Laguna Hills; Orange County CMP intersection)

The relationship of ICU to LOS is illustrated in the following table.

Level of Service	ICU	Level of Service	ICU
A	0.00–0.60	D	0.81–0.90
B	0.61–0.70		0.91–1.00
C	0.71–0.80		> 1.00

ICU = Intersection Capacity Utilization

For the unsignalized Highway Capacity Manual (HCM 2000) methodology, LOS is presented in terms of total intersection delay and approach delay of the major and minor streets (in seconds per vehicle). The resulting delay is expressed in terms of LOS, where LOS A represents free-flow activity and LOS F represents overcapacity operation. LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations.

The relationship of delay and LOS at an unsignalized intersection is summarized below.

Level of Service	Unsignalized Intersection Delay per Vehicle (sec)
A	≤10.0
B	>10.0 and ≤15.0
C	>15.0 and ≤25.0
D	>25.0 and ≤35.0
E	>35.0 and ≤50.0
F	>50.0

Note: sec = seconds

A project impact occurs when the intersection in question exceeds the acceptable LOS and the impact of the development is greater than 0.01. Project mitigation will be required back to 0.90 or baseline, if the baseline is greater than 0.90.

EXISTING CONDITIONS

Existing Site Uses

The current project site is vacant except for nurseries and recreational vehicle storage. On July 20, 2010, the Lake Forest City Council adopted a General Plan Amendment and Zoning Change for the property to Residential and Mixed-Use. Access to the project site will be provided via Alton Parkway, Bake Parkway (via Dimension Drive), Rancho Parkway, and Commercentre Drive. Currently, Alton Parkway is under construction between Irvine Boulevard and Towne Centre Drive-Rancho Parkway (as a six-lane roadway outside of Lake Forest and a four-lane roadway within Lake Forest) and is assumed to be in place in the project buildout scenario. The extension of Rancho Parkway from its current terminus west of Bake Parkway to the intersection of Alton Parkway/Towne Centre Drive is a project design feature and will be constructed with the project. Existing open space, office and industrial uses, as well as planned residential and retail uses, surround the project site.

Existing Conditions

Existing intersection turn-movement volumes and ICU worksheets were prepared by AFA and are provided in Appendix C. The ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting ICU is expressed in terms of LOS, where LOS A represents free-flow activity and LOS F is overcapacity operations. Parameters set by the City for ICU calculations, including lane capacity, right-turn treatment, and clearance interval are included in the analysis.

A summary of existing LOS is presented in Table B. As this table indicates, all of the study area intersections currently operate at satisfactory LOS.

The Alton Parkway extension, which is currently under construction between Irvine Boulevard in the City of Irvine and Towne Centre Drive in the City of Lake Forest, will provide a parallel route to Bake Parkway and Lake Forest Drive. Once completed (as a six-lane roadway outside of Lake Forest and a four-lane roadway within Lake Forest), Alton Parkway could result in a redistribution of traffic within the study area as drivers choose the most direct path from the new options available to them.

Alton Parkway (four lanes within the City of Lake Forest) will be completed prior to commencement of construction of the project. As part of the project, the Lake Forest portion of Alton Parkway will be widened to six lanes. The project will add traffic to a roadway network that already includes the Alton Parkway link. Therefore, intersection turn-movement volumes and ICU worksheets were prepared for an Existing Plus Alton Parkway (No Project) condition. AFA accomplished this utilizing existing intersection turn movement counts and the LFTAM model to forecast traffic redistribution resulting from the completion of Alton Parkway. To provide the clearest picture of the impacts associated with the proposed land use, the Existing Plus Alton (No Project) condition was modeled with the full six-lane Alton Parkway. Existing Plus Alton (No Project) intersection turn-movement volumes and ICU worksheets are provided in Appendix C. A summary of Existing Plus Alton (No Project) LOS is presented in Table C. All of the study area intersections are expected to operate at satisfactory LOS in the Existing Plus Alton (No Project) condition.

Table B - Existing Baseline ICU Summary

Intersection	Existing Baseline				
	AM Peak Hour		PM Peak Hour		
	ICU	LOS	ICU	LOS	
LFTM Intersections					
2	Bake Pkwy/Portola Pkwy	0.56	A	0.59	A
10	Lake Forest Dr/Rancho Pkwy	0.37	A	0.41	A
12	El Toro Rd/Portola-Santa Margarita	0.58	A	0.66	B
14	Bake Pkwy/Irvine Blvd-Trabuco Rd	0.78	C	0.76	C
17	El Toro Rd/Trabuco Rd ¹	0.68	B	0.65	B
22	Bake Pkwy/Jeronimo Rd	0.85	D	0.71	C
23	Lake Forest Dr/Jeronimo Rd	0.58	A	0.61	B
26	Los Alisos Blvd/Jeronimo Rd	0.62	B	0.60	A
30	Los Alisos Blvd/Muirlands Blvd	0.78	C	0.90	D
31	Lake Forest Dr/Rockfield Blvd	0.62	B	0.66	B
34	Los Alisos Blvd/Rockfield Blvd	0.72	C	0.64	B
36	Lake Forest Dr/I-5 SB ramps	0.59	A	0.77	C
37	Paseo de Valencia/Avenida de Carlota	0.50	A	0.62	B
39	El Toro Rd/Avenida de Carlota ¹	0.66	B	0.89	D
41	Alton Pkwy/Towne Centre Dr	Planned Intersection			
Non-LFTM Intersections					
1	Alton Parkway/Portola Pkwy	0.37	A	0.24	A
3	Lake Forest Dr/Portola Pkwy	0.43	A	0.60	A
4	Glenn Ranch Rd/Portola Pkwy	0.54	A	0.47	A
5	Portola Pkwy/SR-241 ramps	0.40	A	0.51	A
6	Alton Pkwy/SR-241 ramps	0.17	A	0.18	A
7	Lake Forest Dr/SR-241 NB ramps	0.29	A	0.35	A
8	Lake Forest Dr/SR-241 SB ramps	0.40	A	0.42	A
9	Bake Pkwy/Rancho Pkwy (N)	0.58	A	0.54	A
11	Bake Pkwy/Rancho Pkwy (S)	0.63	B	0.47	A
13	Bake Pkwy/Commercentre Dr	0.56	A	0.76	C
15	Lake Forest Dr/Trabuco Rd	0.59	A	0.56	A
16	Ridge Route Dr/Trabuco Rd	0.49	A	0.54	A
18	Bake Pkwy/Toledo Way	0.77	C	0.63	B
19	Lake Forest Dr/Toledo Way	0.48	A	0.51	A
20	Ridge Route Dr/Toledo Way	0.33	A	0.35	A
21	El Toro Rd/Toledo Way	0.54	A	0.51	A
24	Ridge Route Dr/Jeronimo Rd	0.29	A	0.43	A
25	El Toro Rd/Jeronimo Rd	0.64	B	0.84	D
27	Lake Forest Dr/Muirlands Blvd	0.48	A	0.66	B
28	Ridge Route Dr/Muirlands Blvd	0.42	A	0.58	A
29	El Toro Rd/Muirlands Blvd	0.58	A	0.71	C
32	Ridge Route Dr/Rockfield Blvd	0.35	A	0.45	A
33	El Toro Rd/Rockfield Dr	0.55	A	0.66	B
35	Lake Forest Dr/I-5 NB ramps	0.40	A	0.57	A
38	El Toro Rd/I-5 NB ramps ¹	0.57	A	0.63	B
40	Portola Pkwy/Rancho Pkwy	Planned Intersection			
42	Alton Pkwy/Commercentre Dr	Planned Intersection			
56	Bake Pkwy/Dimension Dr ²	0.53	A	0.69	B

Notes:

= exceeds City's level of service criteria

= Significant Impact

¹ Orange County Congestion Management Program (CMP) Intersection.² Intersection currently operates as a three-leg intersection.

The fourth leg is constructed and will operate with implementation of the project.

Table C - Existing Plus Alton (No Project) ICU Summary

Intersection	Existing Plus Alton				
	AM Peak Hour		PM Peak Hour		
	ICU	LOS	ICU	LOS	
LFTM Intersections					
2	Bake Pkwy/Portola Pkwy	0.49	A	0.65	B
10	Lake Forest Dr/Rancho Pkwy	0.53	A	0.52	A
12	El Toro Rd/Portola-Santa Margarita	0.63	B	0.59	A
14	Bake Pkwy/Irvine Blvd-Trabuco Rd	0.71	C	0.78	C
17	El Toro Rd/Trabuco Rd ¹	0.64	B	0.65	B
22	Bake Pkwy/Jeronimo Rd	0.84	D	0.75	C
23	Lake Forest Dr/Jeronimo Rd	0.53	A	0.59	A
26	Los Alisos Blvd/Jeronimo Rd	0.61	B	0.58	A
30	Los Alisos Blvd/Muirlands Blvd	0.64	B	0.69	B
31	Lake Forest Dr/Rockfield Blvd	0.53	A	0.64	B
34	Los Alisos Blvd/Rockfield Blvd	0.70	B	0.62	B
36	Lake Forest Dr/I-5 SB ramps	0.56	A	0.78	C
37	Paseo de Valencia/Avenida de Carlota	0.50	A	0.60	A
39	El Toro Rd/Avenida de Carlota ¹	0.65	B	0.90	D
41	Alton Pkwy/Towne Centre Dr	0.41	A	0.38	A
Non-LFTM Intersections					
1	Alton Parkway/Portola Pkwy	0.37	A	0.31	A
3	Lake Forest Dr/Portola Pkwy	0.45	A	0.64	B
4	Glenn Ranch Rd/Portola Pkwy	0.53	A	0.47	A
5	Portola Pkwy/SR-241 ramps	0.38	A	0.48	A
6	Alton Pkwy/SR-241 ramps	0.44	A	0.41	A
7	Lake Forest Dr/SR-241 NB ramps	0.24	A	0.32	A
8	Lake Forest Dr/SR-241 SB ramps	0.36	A	0.39	A
9	Bake Pkwy/Rancho Pkwy (N)	0.53	A	0.51	A
11	Bake Pkwy/Rancho Pkwy (S)	0.62	B	0.47	A
13	Bake Pkwy/Commercentre Dr	0.49	A	0.65	B
15	Lake Forest Dr/Trabuco Rd	0.57	A	0.61	B
16	Ridge Route Dr/Trabuco Rd	0.46	A	0.52	A
18	Bake Pkwy/Toledo Way	0.77	C	0.66	B
19	Lake Forest Dr/Toledo Way	0.49	A	0.49	A
20	Ridge Route Dr/Toledo Way	0.34	A	0.33	A
21	El Toro Rd/Toledo Way	0.54	A	0.50	A
24	Ridge Route Dr/Jeronimo Rd	0.30	A	0.41	A
25	El Toro Rd/Jeronimo Rd	0.64	B	0.83	D
27	Lake Forest Dr/Muirlands Blvd	0.50	A	0.66	B
28	Ridge Route Dr/Muirlands Blvd	0.42	A	0.57	A
29	El Toro Rd/Muirlands Blvd	0.57	A	0.70	B
32	Ridge Route Dr/Rockfield Blvd	0.40	A	0.47	A
33	El Toro Rd/Rockfield Dr	0.56	A	0.64	B
35	Lake Forest Dr/I-5 NB ramps	0.39	A	0.58	A
38	El Toro Rd/I-5 NB ramps ¹	0.57	A	0.63	B
40	Portola Pkwy/Rancho Pkwy	Planned Intersection			
42	Alton Pkwy/Commercentre Dr	0.40	A	0.50	A
56	Bake Pkwy/Dimension Dr ²	0.54	A	0.62	B

Notes:

= exceeds City's level of service criteria

= Significant Impact

¹ Orange County Congestion Management Program (CMP) Intersection.² Intersection currently operates as a three-leg intersection.

The fourth leg is constructed and will operate with implementation of the project.

ANALYSIS METHODOLOGY/APPROACH

The latest LFTAM version was used to forecast 2015 and 2030 conditions with and without the project. Alternative A has a higher trip generation than Alternative B and was used to determine project impacts. If Alternative B is ultimately chosen, the potential traffic impacts would be less than the potential impacts disclosed in this report. The 2030 analysis is a cumulative scenario that includes ambient regional traffic growth, as documented in the traffic model, as well as the build out of the six vacant sites identified in the OSA EIR.

Project impacts are identified at study area intersections for all future conditions, assuming no planned improvements to the circulation system except for two projects currently underway. First is the Alton Parkway extension from Irvine Boulevard to Towne Centre Drive. Second is the widening of Avenida de la Carlota between Paseo de Valencia and El Toro Road and subsequent changes in lane geometrics at the intersections of Paseo de Valencia and/Avenida de la Carlota and El Toro Road/Avenida de la Carlota. As previously noted, Alton Parkway is currently being constructed by the County of Orange Department of Public Works (as a six-lane roadway south of Commercentre Drive) and the City of Lake Forest (as a four-lane roadway north of Commercentre Drive). As part of the project, the Lake Forest section of Alton Parkway will be widened to six-lanes and Rancho Parkway (South) will be extended from its current terminus to Alton Parkway. The City of Laguna Hills has awarded a construction contract for Avenida de la Carlota widening and expects it to be completed by 2015. At any intersection where the project causes a significant impact, improvements identified in the LFTM program are applied to mitigate the impact. Forecast intersection turn-movement volumes and ICU worksheets were prepared by AFA. Traffic volumes and calculations for 2015 and 2030 are referenced throughout this document and are provided in Appendix C.

FUTURE TRAFFIC CONDITIONS

Cumulative (Project Buildout Year) Baseline Traffic Volumes and LOS

Table D presents a summary of the Cumulative (Project Buildout Year) baseline intersection LOS as provided by the City's traffic model consultant. As this table indicates, the following intersections are forecast to operate at unsatisfactory LOS:

- Bake Parkway/Irvine Boulevard-Trabuco Road (a.m. peak hour)
- Los Alisos Boulevard/Muirlands Boulevard (p.m. peak hour)

PROJECT IMPACTS

Trip Generation

Traffic volume forecasts were prepared using the latest version of LFTAM. Trip generation is not based on land use, but rather on socioeconomic data in this model. As a result, the current LFTAM model does not contain land use-based trip rates that can easily be used to determine the trip generation of a land development proposal. Trip generation, distribution, and assignment are integrated into the methodology that the traffic model uses to forecast trips. This information is provided in Appendix C. For the purposes of disclosing the approximate number of trips generated by the proposed project, trip rates contained in the Institute of Transportation Engineers (ITE) *Trip*

Table D - Cumulative (Project Opening Year) Baseline ICU Summary

Intersection	2015 Baseline				
	AM Peak Hour		PM Peak Hour		
	ICU	LOS	ICU	LOS	
LFTM Intersections					
2	Bake Pkwy/Portola Pkwy	0.53	A	0.83	D
10	Lake Forest Dr/Rancho Pkwy	0.60	A	0.82	D
12	El Toro Rd/Portola-Santa Margarita	0.64	B	0.86	D
14	Bake Pkwy/Irvine Blvd-Trabuco Rd	1.04	F	0.89	D
17	El Toro Rd/Trabuco Rd ¹	0.68	B	0.75	C
22	Bake Pkwy/Jeronimo Rd	0.86	D	0.73	C
23	Lake Forest Dr/Jeronimo Rd	0.65	B	0.71	C
26	Los Alisos Blvd/Jeronimo Rd	0.68	B	0.80	C
30	Los Alisos Blvd/Muirlands Blvd	0.88	D	0.93	E
31	Lake Forest Dr/Rockfield Blvd	0.68	B	0.76	C
34	Los Alisos Blvd/Rockfield Blvd	0.82	D	0.80	C
36	Lake Forest Dr/I-5 SB ramps	0.63	B	0.81	D
37	Paseo de Valencia/Avenida de Carlota	0.52	A	0.85	D
39	El Toro Rd/Avenida de Carlota ¹	0.64	B	0.71	C
41	Alton Pkwy/Towne Centre Dr	0.43	A	0.41	A
Non-LFTM Intersections					
1	Alton Parkway/Portola Pkwy	0.43	A	0.30	A
3	Lake Forest Dr/Portola Pkwy	0.54	A	0.75	C
4	Glenn Ranch Rd/Portola Pkwy	0.60	A	0.64	B
5	Portola Pkwy/SR-241 ramps	0.50	A	0.60	A
6	Alton Pkwy/SR-241 ramps	0.53	A	0.45	A
7	Lake Forest Dr/SR-241 NB ramps	0.30	A	0.37	A
8	Lake Forest Dr/SR-241 SB ramps	0.47	A	0.45	A
9	Bake Pkwy/Rancho Pkwy (N)	0.61	B	0.72	C
11	Bake Pkwy/Rancho Pkwy (S)	0.59	A	0.66	B
13	Bake Pkwy/Commercentre Dr	0.60	A	0.74	C
15	Lake Forest Dr/Trabuco Rd	0.82	D	0.80	C
16	Ridge Route Dr/Trabuco Rd	0.50	A	0.61	B
18	Bake Pkwy/Toledo Way	0.74	C	0.62	B
19	Lake Forest Dr/Toledo Way	0.51	A	0.47	A
20	Ridge Route Dr/Toledo Way	0.31	A	0.32	A
21	El Toro Rd/Toledo Way	0.57	A	0.57	A
24	Ridge Route Dr/Jeronimo Rd	0.44	A	0.53	A
25	El Toro Rd/Jeronimo Rd	0.74	C	0.77	C
27	Lake Forest Dr/Muirlands Blvd	0.63	B	0.83	D
28	Ridge Route Dr/Muirlands Blvd	0.47	A	0.65	B
29	El Toro Rd/Muirlands Blvd	0.64	B	0.80	C
32	Ridge Route Dr/Rockfield Blvd	0.47	A	0.56	A
33	El Toro Rd/Rockfield Dr	0.51	A	0.64	B
35	Lake Forest Dr/I-5 NB ramps	0.58	A	0.64	B
38	El Toro Rd/I-5 NB ramps ¹	0.64	B	0.67	B
40	Portola Pkwy/Rancho Pkwy	0.44	A	0.53	A
42	Alton Pkwy/Commercentre Dr	0.44	A	0.58	A
56	Bake Pkwy/Dimension Dr ²	0.54	A	0.69	B

Notes:

= exceeds City's level of service criteria

█ = Significant Impact

Orange County Congestion Management Program (CMP) Intersection.

² Intersection currently operates as a three-leg intersection.

The fourth leg is constructed and will operate with implementation of the project.

Generation Manual, Eighth Edition (2008) were used to calculate the potential trip generation of the project.

As shown in Table E, the project, including 2,379 DU, a 6.9-acre park, and 25,000 sf of neighborhood retail use, is forecast to generate 22,933 daily trips, including 1,657 a.m. peak-hour trips and 2,264 p.m. peak-hour trips.

Trip Distribution and Assignment

Directions of approach to and departure from the site were determined based on a select zone assignment from the LFTAM model. The LFTAM traffic analysis zone (TAZ) in which the project is located (TAZ 31–34 and 36) has five access points (centroids) via Alton Parkway, Rancho Parkway, Commercentre Drive, and Dimension Drive. It should be noted that full access is provided via Alton Parkway and Rancho Parkway from TAZ 36 (i.e., the parcel located on the northeast corner of Alton Parkway/Rancho Parkway). The project traffic volume and level of service analyses are consistent with the City's traffic model assumptions. A sensitivity analysis is provided later in this report to evaluate access alternatives for this specific parcel.

The model data, provided by AFA, represent the baseline traffic volumes plus the trips generated by the proposed project. The regional project trip distribution is illustrated in Figure 3. As illustrated in Figure 3, approximately 42 percent of the trips on site are destined to the north via Alton Parkway, Bake Parkway, and Towne Centre Drive; 49 percent to the south via Alton Parkway and Bake Parkway; and 9 percent to the east via Dimension Drive.

A select zone assignment from the LFTAM model was also used to distribute project trips in/out of the site for purposes of the access analysis. The results are discussed later in this report.

EXISTING TRAFFIC WITH PROPOSED PROJECT

To demonstrate the effect that the project would have on the study area intersections in the existing condition, an existing with project LOS analysis was prepared. Although it is infeasible to develop the project in this timeframe, CEQA requires that this analysis be conducted to disclose the project's potential impacts in an existing setting.

The extension of Alton Parkway is currently under construction. Therefore, Alton Parkway is assumed to be constructed in the Existing Plus Project scenario. For the purposes of CEQA, project traffic volumes are compared to traffic conditions as they currently exist (i.e., no Alton Parkway extension). However, this results in a comparison that mixes the effects of the project and the effects of Alton Parkway. To provide the clearest picture of the potential impacts of the SBRA project, project traffic volumes were also compared to the Existing Plus Alton (No Project) scenario, which was modeled with a full six-lane Alton Parkway. AFA developed the "Plus Alton" intersection volumes by utilizing existing intersection turn movement counts and the LFTAM model to forecast traffic redistribution resulting from the completion of the Alton Parkway extension and the addition of project trip generation.

Table E - Shea Baker Ranch Area Trip Generation

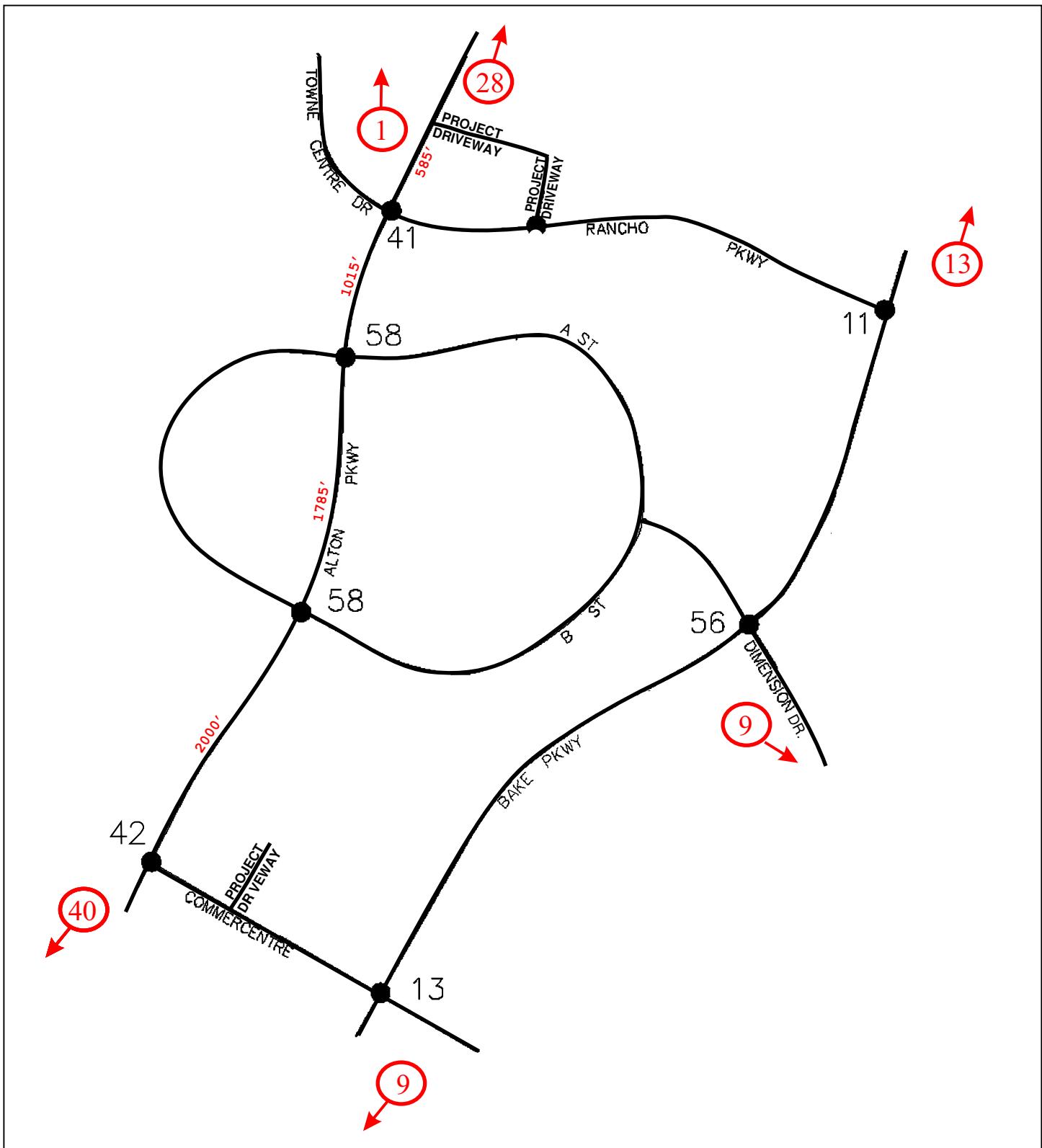
Land Use (ITE Land Use Code)	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
<i>Trip Rates</i>									
Apartment (220)		DU	6.72	0.10	0.41	0.51	0.40	0.22	0.62
Church (560)		TSF	9.11	0.35	0.21	0.56	0.26	0.29	0.55
Condominium (230)		DU	8.15	0.17	0.50	0.67	0.45	0.33	0.78
Community Park (411)		Acre	1.59	0.00	0.01	0.01	0.02	0.02	0.04
Single Family Detached (210)		DU	9.57	0.19	0.56	0.75	0.64	0.37	1.01
Neighborhood Retail (820)		TSF	ITE Regression Equation						
<i>Trip Generation</i>									
Apartment	594	DU	3,992	61	242	303	239	129	368
Condominium	641	DU	5,224	109	321	429	288	212	500
Community Park	6.9	Acre	11	0	0	0	0	0	0
Single Family Detached	1,144	DU	10,948	215	644	858	728	428	1,155
Neighborhood Retail	25	TSF	2,758	40	26	66	115	125	240
Total			22,933	424	1,232	1,657	1,371	893	2,264

Notes:

ADT - Average Daily Traffic

DU - Dwelling Unit

TSF - Thousand Square Feet



L S A

LEGEND

- (XX) - Regional Project Trip Distribution Percentage
- - Analyzed Intersection Within Study Area
- xxx' - Distance Between Intersections



NTS

FIGURE 3

Shea Baker Ranch

Project Trip Distribution

The Existing Plus Project LOS are summarized in Table F. As shown in the table, implementation of the project would result in one significant project impact at Bake Parkway/Jeronimo Road (a.m. peak hour). This is the case whether project traffic is compared to either Existing or Existing with Alton traffic conditions. The impacted location is included in the LFTM program. The LFTM program plans a second northbound left-turn lane at this intersection. Providing a second northbound left-turn lane would result in the intersection operating at acceptable LOS C.

FUTURE TRAFFIC WITH PROPOSED PROJECT

The project was analyzed in a cumulative (Project Buildout Year) condition. The Cumulative (Project Buildout Year) scenario includes ambient regional traffic growth, as documented in the LFTAM traffic model, as well as the build out of the six vacant sites identified in the OSA EIR. The Cumulative (Project Buildout Year) ICU worksheets are provided in Appendix C. The Cumulative (Project Buildout Year) with project LOS are summarized in Table G. As shown in the table, implementation of the project would result in a significant project impact at the following intersections:

- Bake Parkway/Irvine Boulevard-Trabuco Road (a.m. and p.m. peak hour)
- Bake Parkway/Jeronimo Road (a.m. peak hour)

It should be noted that the intersection of Los Alisos Boulevard/Muirlands Boulevard operates at unacceptable LOS E without and with the project. However, the project does not contribute greater than 0.01 to the intersection ICU and therefore does not have a significant impact on the intersection.

The impacted locations noted above are included in the LFTM program. The SBRA project is not forecast to have a significant impact at any non-LFTM intersections. To mitigate the project impacts, planned improvements from the LFTM program were applied at each intersection. The required improvements at each intersection to achieve satisfactory LOS are noted in Table H.

REQUIRED MITIGATION MEASURES

The OSA EIR, completed in 2008, identified impacted intersections and mitigation measures necessary to accommodate the additional traffic generated by six development areas in the City of Lake Forest. The current proposed SBRA Project is less intense and generates fewer trips than the land uses that were analyzed for the SBRA Project site in the OSA EIR. Therefore, the SBRA Project does not create any new significant impacts or increase the severity of any previously identified impacts identified in the OSA EIR, and the mitigation measures identified in the OSA EIR shall be brought forward and remain applicable to the current SBRA Project.

Based on the results of this traffic study, the project will impact the design or operation of the surrounding roadway system in the existing and cumulative (Project Buildout Year) conditions. Evaluation of intersection LOS shows that the addition of project traffic to baseline traffic volumes contributes to impacts at two intersections, as shown in Tables F and G. The ICU worksheets for all with project scenarios are provided in Appendix C. Both of the impacted intersections, Bake Parkway/Irvine Boulevard-Trabuco Road and Bake Parkway/Jeronimo Road, were identified as impacts in the OSA EIR and have future programmed improvements identified in the LFTM program.

Table F - Existing Plus Project ICU Summary

Intersection	Existing Baseline				Existing Plus Alton				Existing Plus Project				
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	
LFTM Intersections													
2	Bake Pkwy/Portola Pkwy	0.56	A	0.59	A	0.49	A	0.65	B	0.49	A	0.63	B
10	Lake Forest Dr/Rancho Pkwy	0.37	A	0.41	A	0.53	A	0.52	A	0.53	A	0.48	A
12	El Toro Rd/Portola-Santa Margarita	0.58	A	0.66	B	0.63	B	0.59	A	0.62	B	0.57	A
14	Bake Pkwy/Irvine Blvd-Trabuco Rd	0.78	C	0.76	C	0.71	C	0.78	C	0.77	C	0.78	C
17	El Toro Rd/Trabuco Rd ¹	0.68	B	0.65	B	0.64	B	0.65	B	0.66	B	0.66	B
22	Bake Pkwy/Jeronimo Rd	0.85	D	0.71	C	0.84	D	0.75	C	0.91	E	0.73	C
23	Lake Forest Dr/Jeronimo Rd	0.58	A	0.61	B	0.53	A	0.59	A	0.56	A	0.59	A
26	Los Alisos Blvd/Jeronimo Rd	0.62	B	0.60	A	0.61	B	0.58	A	0.61	B	0.60	A
30	Los Alisos Blvd/Muirlands Blvd	0.78	C	0.90	D	0.64	B	0.69	B	0.64	B	0.69	B
31	Lake Forest Dr/Rockfield Blvd	0.62	B	0.66	B	0.53	A	0.64	B	0.54	A	0.64	B
34	Los Alisos Blvd/Rockfield Blvd	0.72	C	0.64	B	0.70	B	0.62	B	0.72	C	0.62	B
36	Lake Forest Dr/I-5 SB ramps	0.59	A	0.77	C	0.56	A	0.78	C	0.57	A	0.78	C
37	Paseo de Valencia/Avenida de Carlota	0.50	A	0.62	B	0.50	A	0.60	A	0.50	A	0.61	B
39	El Toro Rd/Avenida de Carlota ¹	0.66	B	0.89	D	0.65	B	0.90	D	0.65	B	0.91	E
41	Alton Pkwy/Towne Centre Dr	Planned Intersection				0.41	A	0.38	A	0.55	A	0.52	A
Non-LFTM Intersections													
1	Alton Parkway/Portola Pkwy	0.37	A	0.24	A	0.37	A	0.31	A	0.40	A	0.34	A
3	Lake Forest Dr/Portola Pkwy	0.43	A	0.60	A	0.45	A	0.64	B	0.43	A	0.62	B
4	Glenn Ranch Rd/Portola Pkwy	0.54	A	0.47	A	0.53	A	0.47	A	0.51	A	0.45	A
5	Portola Pkwy/SR-241 ramps	0.40	A	0.51	A	0.38	A	0.48	A	0.37	A	0.46	A
6	Alton Pkwy/SR-241 ramps	0.17	A	0.18	A	0.44	A	0.41	A	0.52	A	0.47	A
7	Lake Forest Dr/SR-241 NB ramps	0.29	A	0.35	A	0.24	A	0.32	A	0.23	A	0.32	A
8	Lake Forest Dr/SR-241 SB ramps	0.40	A	0.42	A	0.36	A	0.39	A	0.30	A	0.37	A
9	Bake Pkwy/Rancho Pkwy (N)	0.58	A	0.54	A	0.53	A	0.51	A	0.49	A	0.50	A
11	Bake Pkwy/Rancho Pkwy (S)	0.63	B	0.47	A	0.62	B	0.47	A	0.62	B	0.45	A
13	Bake Pkwy/Commercentre Dr	0.56	A	0.76	C	0.49	A	0.65	B	0.50	A	0.66	B
15	Lake Forest Dr/Trabuco Rd	0.59	A	0.56	A	0.57	A	0.61	B	0.58	A	0.60	A
16	Ridge Route Dr/Trabuco Rd	0.49	A	0.54	A	0.46	A	0.52	A	0.46	A	0.52	A
18	Bake Pkwy/Toledo Way	0.77	C	0.63	B	0.77	C	0.66	B	0.78	C	0.63	B
19	Lake Forest Dr/Toledo Way	0.48	A	0.51	A	0.49	A	0.49	A	0.48	A	0.49	A
20	Ridge Route Dr/Toledo Way	0.33	A	0.35	A	0.34	A	0.33	A	0.32	A	0.34	A
21	El Toro Rd/Toledo Way	0.54	A	0.51	A	0.54	A	0.50	A	0.55	A	0.50	A
24	Ridge Route Dr/Jeronimo Rd	0.29	A	0.43	A	0.30	A	0.41	A	0.30	A	0.43	A
25	El Toro Rd/Jeronimo Rd	0.64	B	0.84	D	0.64	B	0.83	D	0.65	B	0.82	D
27	Lake Forest Dr/Muirlands Blvd	0.48	A	0.66	B	0.50	A	0.66	B	0.50	A	0.65	B
28	Ridge Route Dr/Muirlands Blvd	0.42	A	0.58	A	0.42	A	0.57	A	0.42	A	0.58	A
29	El Toro Rd/Muirlands Blvd	0.58	A	0.71	C	0.57	A	0.70	B	0.58	A	0.71	C
32	Ridge Route Dr/Rockfield Blvd	0.35	A	0.45	A	0.40	A	0.47	A	0.41	A	0.48	A
33	El Toro Rd/Rockfield Dr	0.55	A	0.66	B	0.56	A	0.64	B	0.57	A	0.63	B
35	Lake Forest Dr/I-5 NB ramps	0.40	A	0.57	A	0.39	A	0.58	A	0.39	A	0.57	A
38	El Toro Rd/I-5 NB ramps ¹	0.57	A	0.63	B	0.57	A	0.63	B	0.58	A	0.63	B
40	Portola Pkwy/Rancho Pkwy	Planned Intersection				Planned Intersection				Planned Intersection			
42	Alton Pkwy/Commercentre Dr	Planned Intersection				0.40	A	0.50	A	0.50	A	0.58	A
56	Bake Pkwy/Dimension Dr ²	0.53	A	0.69	B	0.54	A	0.62	B	0.59	A	0.75	C

Notes:

= exceeds City's level of service criteria

= Significant Impact

¹ Orange County Congestion Management Program (CMP) Intersection.² Intersection currently operates as a three-leg intersection. The fourth leg is constructed and will operate with implementation of the project.

Table G - Cumulative (Project Opening Year) Plus Project ICU Summary

Intersection	2015 Baseline				2015 Plus Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
LFTM Intersections								
2 Bake Pkwy/Portola Pkwy	0.53	A	0.83	D	0.51	A	0.81	D
10 Lake Forest Dr/Rancho Pkwy	0.60	A	0.82	D	0.59	A	0.85	D
12 El Toro Rd/Portola-Santa Margarita	0.64	B	0.86	D	0.64	B	0.85	D
14 Bake Pkwy/Irvine Blvd-Trabuco Rd	1.04	F	0.89	D	1.06	F	0.93	E
17 El Toro Rd/Trabuco Rd ¹	0.68	B	0.75	C	0.68	B	0.75	C
22 Bake Pkwy/Jeronimo Rd	0.86	D	0.73	C	0.91	E	0.80	C
23 Lake Forest Dr/Jeronimo Rd	0.65	B	0.71	C	0.70	B	0.74	C
26 Los Alisos Blvd/Jeronimo Rd	0.68	B	0.80	C	0.70	B	0.80	C
30 Los Alisos Blvd/Muirlands Blvd	0.88	D	0.93	E	0.88	D	0.93	E
31 Lake Forest Dr/Rockfield Blvd	0.68	B	0.76	C	0.69	B	0.76	C
34 Los Alisos Blvd/Rockfield Blvd	0.82	D	0.80	C	0.81	D	0.81	D
36 Lake Forest Dr/I-5 SB ramps	0.63	B	0.81	D	0.64	B	0.81	D
37 Paseo de Valencia/Avenida de Carlota	0.52	A	0.85	D	0.53	A	0.87	D
39 El Toro Rd/Avenida de Carlota ¹	0.64	B	0.71	C	0.67	B	0.71	C
41 Alton Pkwy/Towne Centre Dr	0.43	A	0.41	A	0.60	A	0.55	A
Non-LFTM Intersections								
1 Alton Parkway/Portola Pkwy	0.43	A	0.30	A	0.44	A	0.31	A
3 Lake Forest Dr/Portola Pkwy	0.54	A	0.75	C	0.54	A	0.76	C
4 Glenn Ranch Rd/Portola Pkwy	0.60	A	0.64	B	0.61	B	0.62	B
5 Portola Pkwy/SR-241 ramps	0.50	A	0.60	A	0.48	A	0.60	A
6 Alton Pkwy/SR-241 ramps	0.53	A	0.45	A	0.56	A	0.51	A
7 Lake Forest Dr/SR-241 NB ramps	0.30	A	0.37	A	0.31	A	0.35	A
8 Lake Forest Dr/SR-241 SB ramps	0.47	A	0.45	A	0.41	A	0.44	A
9 Bake Pkwy/Rancho Pkwy (N)	0.61	B	0.72	C	0.61	B	0.71	C
11 Bake Pkwy/Rancho Pkwy (S)	0.59	A	0.66	B	0.61	B	0.67	B
13 Bake Pkwy/Commercecentre Dr	0.60	A	0.74	C	0.60	A	0.71	C
15 Lake Forest Dr/Trabuco Rd	0.82	D	0.80	C	0.83	D	0.82	D
16 Ridge Route Dr/Trabuco Rd	0.50	A	0.61	B	0.49	A	0.60	A
18 Bake Pkwy/Toledo Way	0.74	C	0.62	B	0.77	C	0.64	B
19 Lake Forest Dr/Toledo Way	0.51	A	0.47	A	0.52	A	0.48	A
20 Ridge Route Dr/Toledo Way	0.31	A	0.32	A	0.31	A	0.33	A
21 El Toro Rd/Toledo Way	0.57	A	0.57	A	0.57	A	0.59	A
24 Ridge Route Dr/Jeronimo Rd	0.44	A	0.53	A	0.44	A	0.55	A
25 El Toro Rd/Jeronimo Rd	0.74	C	0.77	C	0.74	C	0.78	C
27 Lake Forest Dr/Muirlands Blvd	0.63	B	0.83	D	0.65	B	0.84	D
28 Ridge Route Dr/Muirlands Blvd	0.47	A	0.65	B	0.45	A	0.65	B
29 El Toro Rd/Muirlands Blvd	0.64	B	0.80	C	0.65	B	0.80	C
32 Ridge Route Dr/Rockfield Blvd	0.47	A	0.56	A	0.45	A	0.55	A
33 El Toro Rd/Rockfield Dr	0.51	A	0.64	B	0.52	A	0.63	B
35 Lake Forest Dr/I-5 NB ramps	0.58	A	0.64	B	0.57	A	0.64	B
38 El Toro Rd/I-5 NB ramps ¹	0.64	B	0.67	B	0.65	B	0.68	B
40 Portola Pkwy/Rancho Pkwy	0.44	A	0.53	A	0.44	A	0.53	A
42 Alton Pkwy/Commercecentre Dr	0.44	A	0.58	A	0.53	A	0.64	B
56 Bake Pkwy/Dimension Dr ²	0.54	A	0.69	B	0.61	B	0.78	C

Notes:

= exceeds City's level of service criteria

= Significant Impact

¹ Orange County Congestion Management Program (CMP) Intersection.² Intersection currently operates as a three-leg intersection. The fourth leg is constructed and will operate with implementation of the project.

Both intersections would operate at satisfactory LOS (LOS D or better) during both peak hours with implementation of the planned LFTM improvements as shown in Table H. Mitigation of the direct project impacts would be satisfied through payment of the traffic impact fee identified for the SBRA project in the LFTM program. The following improvements would be required and will be implemented by the LFTM program.

Bake Parkway/Irvine Boulevard-Trabuco Road

- Add a second northbound left-turn lane
- Add a fourth westbound through lane and a de facto westbound right-turn lane
- Restripe the eastbound approach to maintain two left-turn lanes and provide two exclusive through lanes, a shared through/right-turn lane, and an exclusive right-turn lane

Bake Parkway/Jeronimo Road

- Add a second northbound left-turn lane

CONSTRUCTION IMPACTS

Prior to completion of the project, the project site will generate vehicular traffic in the form of construction equipment, material deliveries, and workers. The project site is large and can accommodate storage of construction equipment overnight on site. In addition, grading operations will not require import from or export to a location off site. Cut and fill will be balanced on site. This means that daily trips to the site during the construction phase are limited to material deliveries and construction worker commute trips. Trips generated by material deliveries and construction workers will be less than the 22,933 ADT, 1,657 a.m. peak hour, and 1,264 p.m. peak hour trips generated by the project and analyzed above. Therefore, no new potential impacts are anticipated to result from construction activities.

PROJECT SITE EVALUATION - 2030 PLUS PROJECT CONDITION

In addition to payment of fees identified in the LFTM program, Lake Forest Municipal Code Section 7.19.030 states that secondary improvements may be required for specific intersections identified for each project with the fair share of costs of any required improvements to be paid by that project. For SBRA, the identified intersections are:

- Bake Parkway/Rancho Parkway South
- Bake Parkway/Baffin Bay (if access is taken via Baffin Bay)
- Bake Parkway/Rancho Parkway

The SBRA project does not identify Baffin Bay as a project access location. In order to analyze the remaining two intersections under worst-case traffic volumes, a long-range 2030 analysis was

Table H - Cumulative (Project Opening) Plus Project with LFTM Improvements ICU Summary

Intersection		Traffic Control	Intersection Approach Lanes ¹												Level of Service			
			Northbound			Southbound			Eastbound			Westbound			AM Peak Hour		PM Peak Hour	
			L	T	R	L	T	R	L	T	R	L	T	R	ICU	LOS	ICU	LOS
14	Bake Pkwy/Irvine Blvd-Trabuco Rd																	
	<i>No-Project</i>	Signal	1	3	0	2	3	1	2	3	1	2	3	1	1.06	F	0.93	E
	<i>With LFTM Improvements</i>	Signal	<u>2</u>	3	0	2	3	1	2	<u>2.5</u>	<u>1.5</u>	2	<u>4</u>	<u>1D</u>	0.89	D	0.79	C
22	Bake Pkwy/Jeronimo Road																	
	<i>No-Project</i>	Signal	1	3	1D	1	3	1D	2	2	1	1	2	0	0.91	E	0.80	C
	<i>With LFTM Improvements</i>	Signal	<u>2</u>	3	1D	1	3	1D	2	2	1	1	2	0	0.79	C	0.80	C

Notes:

¹ L = Left; T = Through; R = Right; **Bold and Underlined** = Improvement; F = Free Right Turn; D = De-Facto Right Turn; S = Shared Lane; **Bold** = Improved LOS

Table I: 2030 Plus Project (Project Access Intersections)

Intersection	2030 Baseline				2030 Plus Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
9 Bake Parkway/Rancho Parkway	0.67	B	0.84	D	0.66	B	0.86	D
11 Bake Parkway/Rancho Parkway South	0.61	B	0.74	C	0.70	B	0.73	C

ICU = intersection capacity utilization

LOS = level of service

conducted. The 2030 ICU worksheets are provided in Appendix C. Table I provides ICU and LOS for Bake Parkway/Rancho Parkway South and Bake Parkway/Rancho Parkway without and with the project. As shown in Table I, both intersections are anticipated to operate at an acceptable LOS, and the SBRA project is not anticipated to impact either location.

SPECIAL ANALYSES

Project Access and Internal Circulation

The existing SBRA site is currently vacant except for nurseries and recreational vehicle storage. As shown in the project site plan (Figure 2), access to the project site will be provided via two new roadways intersecting Alton Parkway, the extension of Dimension Drive, and project driveways on Commercentre Drive, and Rancho Parkway. It should be noted that full access onto Alton Parkway from the parcel north of Rancho Parkway is assumed in the City's traffic model and evaluated below. However, a sensitivity analysis is provided to evaluate access alternatives for this parcel.

At the following five locations, a HCM 2000 analysis was conducted to determine whether the intersections would provide satisfactory full-access operation in an unsignalized (i.e., two-way stop) configuration.

1. Alton Parkway/Project driveway (full access north of Towne Centre Drive-Rancho Parkway)
2. Alton Parkway/A Street
3. Alton Parkway/B Street
4. Project driveway/Rancho Parkway (full access east of Alton Parkway)
5. Project driveway/Commercentre Drive (full access east of Alton Parkway)

An additional project access intersection, A Street/Dimension Drive, was analyzed as a roundabout using the Federal Highway Administration (FHWA) roundabout methodology.

Both 2015 and 2030 were selected as analysis time periods to examine intersection function at project opening (i.e., 2015) and under worst-case traffic volumes (i.e., 2030). Comparison between 2015 and 2030 results will also determine whether traffic signals are warranted by project conditions or by increases in ambient traffic. Trip generation resulting from buildout of the project are added to the without project through movements (calculated from adjacent intersections) to determine total volume

for the six project intersections. The project-related traffic volumes at the project driveways and newly created intersections are based on a trip distribution developed from the output of the LFTAM model forecast volumes. The distribution percentages, as shown in Figure 3, are based on the centroid approach and departures from the LFTAM model. The traffic volumes at key intersections within the project site are derived from the ITE trip generation identified in Table E (based on land use trips) using the TRAFFIX 8.0 software. The project trip assignment is shown in Figure 4.

Figures 5 and 6 illustrate Cumulative (Project Buildout Year) traffic volumes without and with the project. Figures 7 and 8 illustrate 2030 traffic volumes without and with the project.

Table J presents the analysis of project access locations as unsignalized intersections. The HCM worksheets for this analysis are provided in Appendix D. In addition to the six intersections shown in Table J, Bake Parkway/Dimension Drive and Bake Parkway/Rancho Parkway South will also provide access to the project. However, these intersections are currently signalized and are discussed in the project impact analysis. Access to the project site is not provided at Baffin Bay Drive; therefore, this intersection is not analyzed in this section.

Table J: Project Unsignalized Intersection LOS Summary

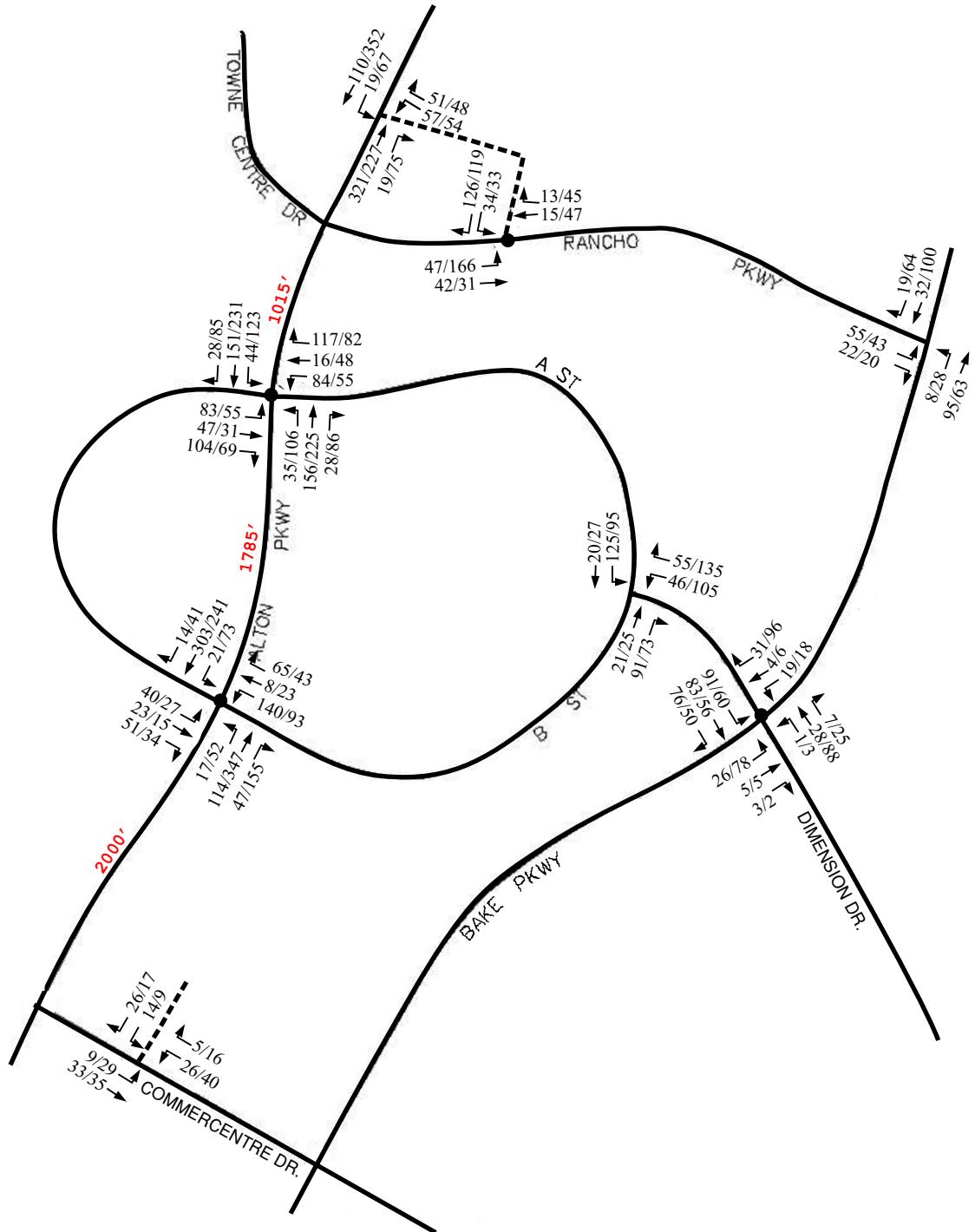
Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
Cumulative (Project Buildout) Plus Project				
1. Alton Parkway/Project driveway	>50	F	>50	F
2. Alton Parkway/A Street	>50	F	>50	F
3. Alton Parkway/B Street	>50	F	>50	F
4. Project driveway/Rancho Parkway	10.6	B	10.9	B
5. Project driveway/Commercentre Drive	11.6	B	15.3	C
6. A Street/Dimension Drive	3.5	A	3.6	A
2030 Plus Project				
1. Alton Parkway/Project driveway	>50	F	>50	F
2. Alton Parkway/A Street	>50	F	>50	F
3. Alton Parkway/B Street	>50	F	>50	F
4. Project driveway/Rancho Parkway	10.4	B	10.9	B
5. Project driveway/Commercentre Drive	11.2	B	16.8	C
6. A Street/Dimension Drive	3.5	A	3.6	A

LOS = level of service

sec = seconds

As Table J indicates, three of the six full-access unsignalized project-access intersections are forecast to operate at unsatisfactory LOS during one or both peak hours if unsignalized.

A signal warrant analysis, consistent with Warrant 3 in the Manual of Uniform Traffic Control Devices (MUTCD 2009) and the MUTCD 2010 California Supplement, has been prepared for the three deficient intersections listed above. The signal warrant analysis worksheets are included in Appendix E. The intersections of Alton Parkway/A Street and Alton Parkway/B Street would meet the peak-hour traffic signal warrant during the a.m. peak hour in all analysis years. The traffic



LSA

LEGEND

- xxx'** - Distance Between Intersections
 - - Project Driveway

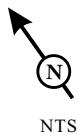
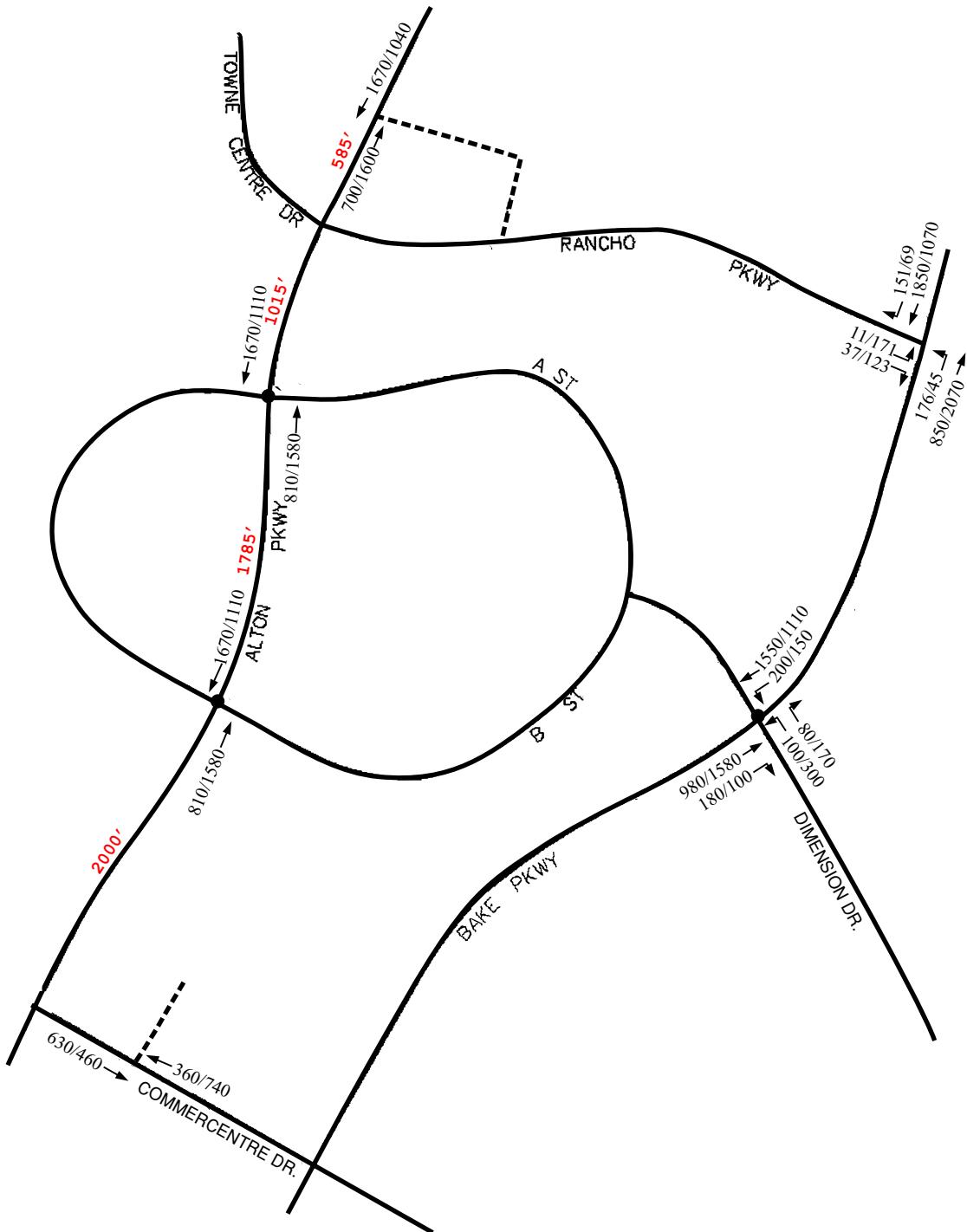


FIGURE 4

Shea Baker Ranch
Project Trip Assignment



L S A

LEGEND

- xxx'** - Distance Between Intersections
- - Project Driveway

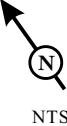
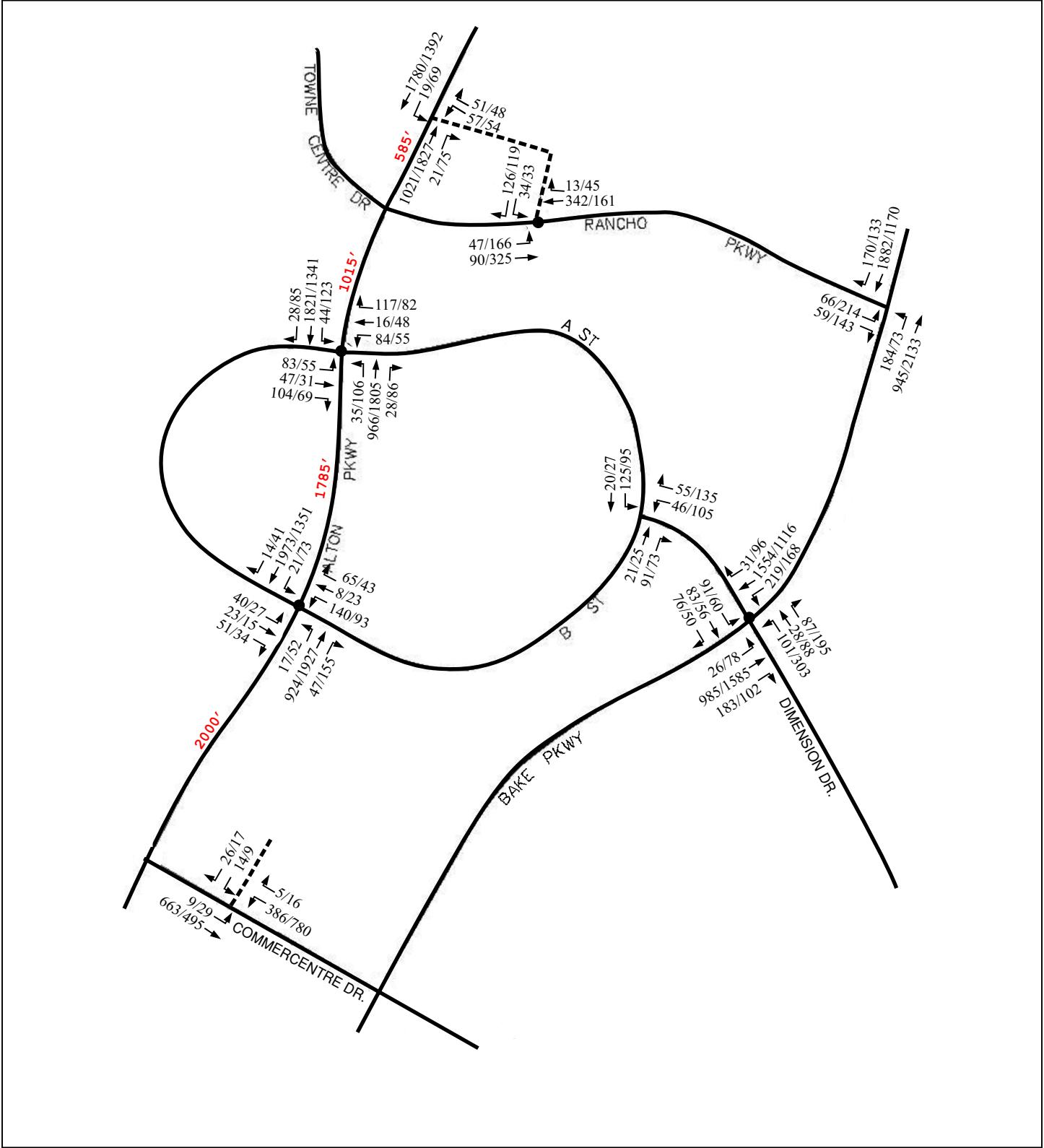


FIGURE 5

Shea Baker Ranch

Cumulative (Project Bailout) No Project Peak Hour Volumes

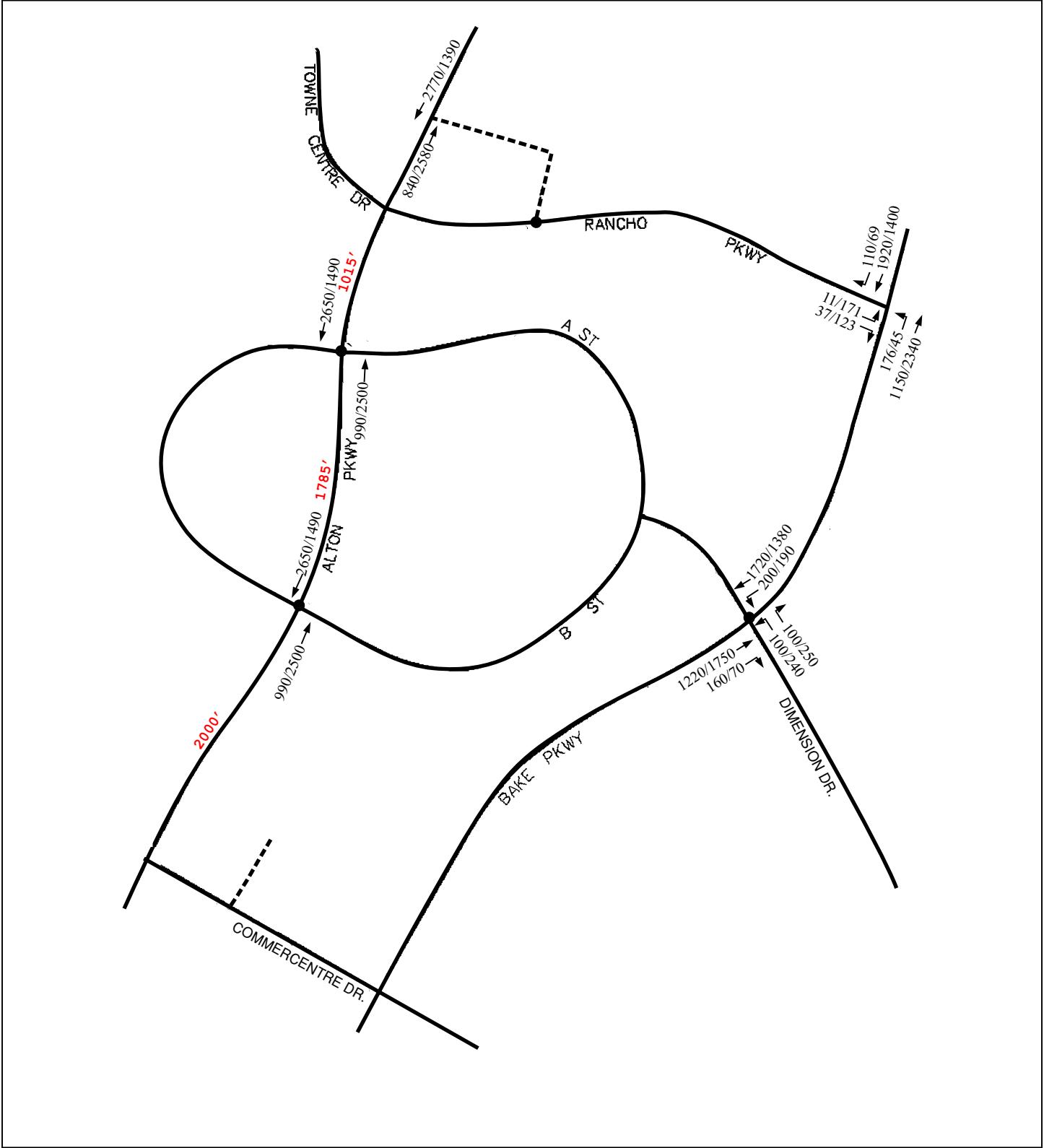


L S A

LEGEND

- xxx'** - Distance Between Intersections
- - Project Driveway



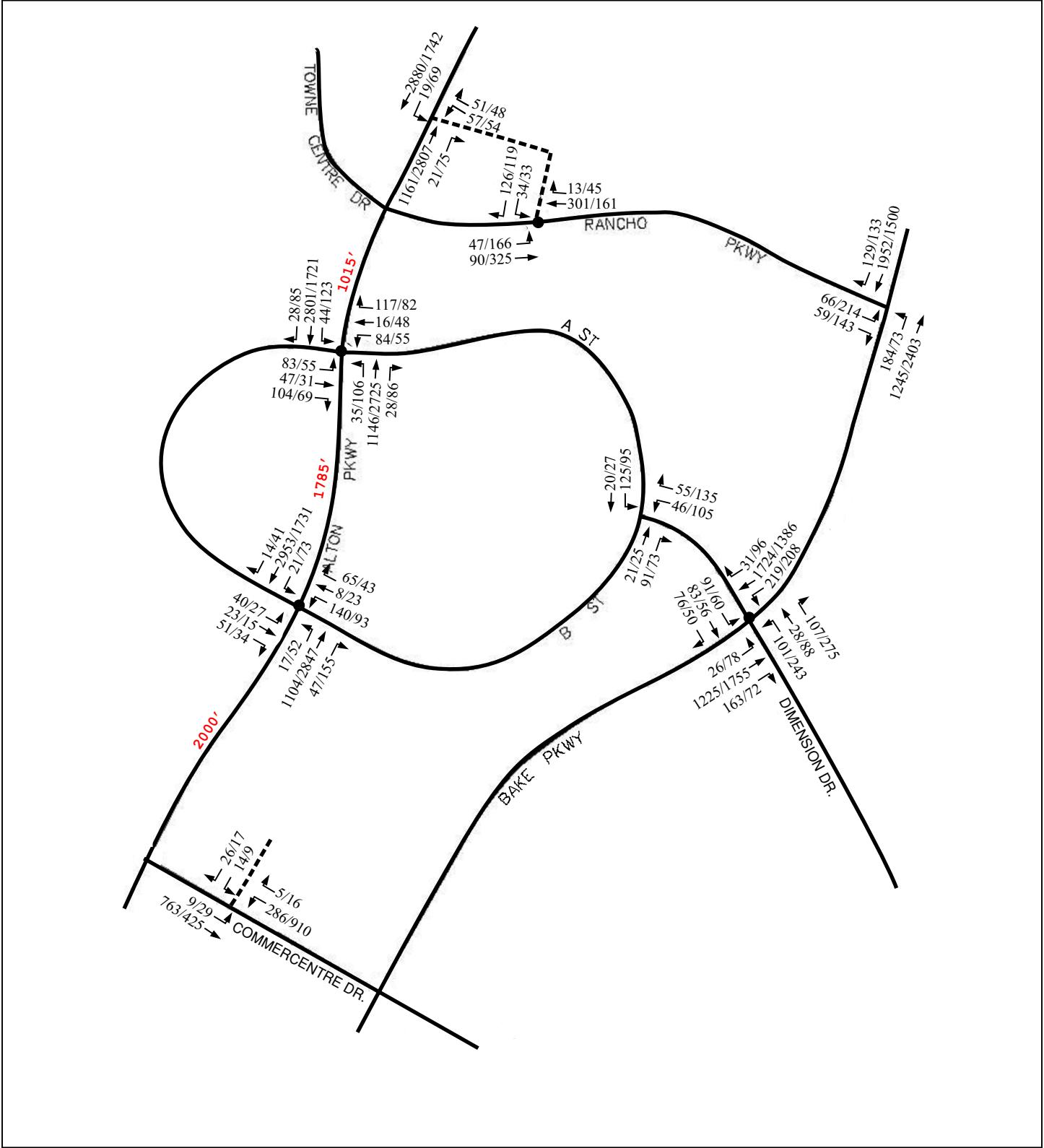


L S A

LEGEND

- xxx'** - Distance Between Intersections
- - Project Driveway





LSA

LEGEND

- xxx'** - Distance Between Intersections
- - Project Driveway



FIGURE 8

Shea Baker Ranch
Year 2030 Plus Project Peak Volumes

volumes forecast at the full-access driveway along Alton Parkway would satisfy the peak-hour traffic signal warrant during the p.m. peak hour in all analysis years. Because these locations meet the peak-hour traffic signal warrant, signalization is recommended to maintain acceptable LOS at these full-access intersections.

The full-access driveway along Rancho Parkway and the full-access driveway along Commercentre Drive would not satisfy the peak-hour signal warrant during either peak hour. Furthermore, these intersections are forecast to operate at an acceptable LOS during the a.m. and p.m. peak hours in all three analysis years. The intersection of A Street/Dimension Drive is forecast to function at an acceptable LOS during the a.m. and p.m. peak hours as a single-lane roundabout.

The ICU methodology was used to assess the operations of the three intersections along Alton Parkway in a signalized condition. ICU worksheets for these analyses are provided in Appendix F.

As Table K indicates, all three full-access intersections would operate at acceptable LOS (LOS D or better) during both peak hours if they are signalized.

Table K: Signalized Project Intersection LOS Summary

Intersection	AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS
Cumulative (Project Buildout) Plus Project				
1. Alton Parkway/Project driveway	0.43	A	0.48	A
2. Alton Parkway/A Street	0.57	A	0.60	A
3. Alton Parkway/B Street	0.58	A	0.59	A
2030 Plus Project				
1. Alton Parkway/Project driveway	0.65	B	0.67	B
2. Alton Parkway/A Street	0.76	C	0.78	C
3. Alton Parkway/B Street	0.77	C	0.77	C

ICU = Intersection Capacity Utilization

LOS = level of service

Traffic signals are necessary in order to maintain full access and satisfactory LOS along Alton Parkway. However, these traffic signals would be spaced close together as illustrated in Figures 3 through 8. LSA examined average queue length anticipated at each of these intersections to determine the likelihood of interference with downstream signals. The analysis revealed that none of the average queue lengths extend to a downstream intersection. To provide improved progression along Alton Parkway, it is still recommended that the traffic signal system provide interconnection and coordination between all five traffic signals necessary in the vicinity of the project.

Sensitivity Analysis

As described in the project description, alternative land uses are proposed on the parcel located on the northeast corner of the Alton Parkway/Rancho Parkway intersection. The proposed access into and out of this parcel for either land use alternative is undetermined at this time. The City's LFTAM model assumes full access onto both Alton Parkway and Rancho Parkway from the TAZ that

incorporates this parcel. The level of service and traffic control, assuming a full access onto Alton Parkway, has been evaluated above. To evaluate ingress and egress alternatives for this parcel, a sensitivity analysis has been provided.

In the event that no access is provided along Alton Parkway from this parcel, the total trip generation from the Alternative A land use was distributed exclusively via the project driveway on Rancho Parkway. An HCM unsignalized analysis was prepared for this access scenario. As a result, the project driveway at Rancho Parkway would operate at acceptable LOS as an unsignalized intersection with full access and 100 percent of the traffic generated from this parcel. Furthermore, the traffic volumes forecast at the project driveway along Rancho Parkway would not satisfy the peak-hour traffic signal warrant. The HCM worksheets for this analysis are provided in Appendix D and are presented on Table L.

Table L: Project Driveway/Rancho Parkway Exclusive Access LOS Summary

Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
Cumulative (Project Buildout) Plus Project	11.6	B	12.7	B
2030 Plus Project	11.2	B	12.7	B

LOS = level of service

sec = seconds

As a second alternative, should right turn in/out access be provided onto Alton Parkway, the traffic volume at the Rancho Parkway driveway would be reduced (i.e., less than 100 percent of the trip generation). Therefore, the conclusions regarding level of service and traffic control at the project driveway on Rancho Parkway would not change.

RECOMMENDATIONS

Project Access

Two primary intersections created by the project, Alton Parkway/A Street, and Alton Parkway/B Street will not operate at an acceptable LOS as unsignalized intersections. However, these locations meet the peak-hour traffic signal warrant and therefore it is recommended that traffic signals be provided at these full-access intersections. To provide full access and maintain satisfactory LOS and adequate signal progression, the traffic signal system would require interconnection and coordination at the following access locations:

- Alton Parkway/Towne Centre Drive-Rancho Parkway
- Alton Parkway/A Street
- Alton Parkway/B Street
- Alton Parkway/Commercentre Drive

Access into the parcel located north of Rancho Parkway is undetermined at this time. Should a full access driveway be provided onto Alton Parkway, a traffic signal would be recommended. In the

event traffic is only provided via Rancho Parkway from this parcel, the full-access Project driveway/Rancho Parkway intersection would operate at acceptable LOS as an unsignalized driveway.

CONCLUSIONS

The current proposed SBRA Project is less intense and generates fewer trips than the land uses assumed and analyzed for this site in the OSA EIR, and does not create any new significant impacts nor increase the severity of any previously analyzed significant impacts. Based on the results of this analysis to satisfy the LFTM ordinance, the SBRA project will impact the surrounding roadway system. The evaluation of the study area intersection LOS with construction of the project shows that the addition of project traffic to existing and cumulative (Project Buildout Year) traffic volumes will contribute to impacts at two intersections. However, the project will pay a traffic impact fee, as identified in the LFTM program. The planned LFTM improvements would mitigate the project impacts at these deficient locations to satisfactory LOS (LOS D or better) during both peak hours. As a result, there are no significant unavoidable impacts caused by the SBRA project.

APPENDIX A

SCOPE OF WORK

SHEA BAKER RANCH TRAFFIC IMPACT ANALYSIS

SCOPE OF WORK

Introduction

This scope of work identifies the work tasks necessary to complete a Traffic Impact Analysis (TIA) for the proposed Shea Baker Ranch residential and commercial project (SBRA), located in the City of Lake Forest (City). The general boundary of the project includes Towne Centre Drive/Rancho Parkway to the north, Commercentre Drive to the south, Bake Parkway to the east, and the Borrego Canyon Wash to the west.

The Shea Baker Ranch project site is one of the five vacant parcels analyzed in the Vacant Land Opportunities study (OSA). As part of the Opportunities Study, the City established the Lake Forest Transportation Mitigation (LFTM) Program, to allocate the costs of transportation improvements needed to serve projects within the Opportunities Study area and Citywide.

Per the City's requirements, site specific traffic studies will be required for each of the vacant properties in the Opportunities Study Area to determine where traffic signals, lane augmentation, stop signs and other localized improvements will be required. These types of improvements are "Project Features", unique to each of the vacant parcels that comprise the Opportunities Study. This level of study takes place when subdivision maps are submitted for the precise development of each property and a site specific environmental document is prepared. The City's General Plan and the Opportunities Study PEIR include performance criteria to which all intersections must conform.

It should be noted that an analysis of the project in a future 2030 condition is limited to assessing the project access intersections and an area-wide impact analysis is not proposed as part of this work effort. This General Plan-level analysis was conducted as part of the General Plan Amendment and Opportunities Study EIR in 2008. The project does not propose an amendment to the City's General Plan to increase the number of residential units or commercial square footage. Therefore, the impact assessment to satisfy CEQA requirements will correspond to a project-opening/completion-year condition compared to ground conditions.

Scope of Work

The following scope of work provides an assessment of traffic impacts and determination of traffic mitigation as required for CEQA compliance for the build out of the Shea Baker Ranch project. This scope of work is consistent with the Traffic Study Scope of Work for participating landowners of the LFTM Program. The traffic analysis, in support of the environmental document, will examine the following four development scenarios:

1. Existing (2010 - 2011) conditions
2. Existing (2010 - 2011) plus project conditions
3. Cumulative (2015) conditions
4. Cumulative (2015) plus project conditions
5. 2030 plus project condition – project site evaluation

The future conditions described above are based on the roadway network and land use assumptions envisioned to be in place by 2015. City staff will compile a list of the approved and pending projects to be analyzed for the cumulative setting to be incorporated into the model runs identified above.

The tasks that outline the details of the traffic impact analysis are described below.

SubTask 1: Coordination with City Staff

Prior to commencing preparation of the traffic study, the applicant (Shea Homes) and traffic consultant (LSA Associates, Inc.) will contact City Planning and Public Works staff to discuss particular issues related to the proposed project. This will include confirmation of specific analysis methodologies and assumptions, identification and confirmation of analysis intersections, identification of traffic data to be provided by the City and/or traffic modeling consultant, and discussion of specific concerns regarding the project and/or study area.

SubTask 2: Study Area

The study area will be developed in consultation with City staff and their traffic model consultant (Austin-Foust Associates). The determination of the study area for this traffic study is a two-step process as follows:

- 1) Austin-Foust Associates (AFA) will utilize the LFTAM traffic model for Lake Forest intersections and the ITAM traffic model for Irvine intersections. The purpose of this step is to confirm that the original study area identified in the previous OSA study is consistent with the latest OSA proposals and updated land use in adjacent cities (e.g., Irvine). To compile the traffic data, the procedure involves using the LFTAM to obtain the differential between the original (in 2005) and the latest Lake Forest Vacant Land OSA development assumptions including the SBRA project update. The differential will then be applied to the latest ITAM 8.4-10 Post-2030 forecasts resulting in the traffic volumes for the extended study area. The study area will be further extended if the location on the edge of the current study area is deficient and the ICU difference is greater than 0.01, or the project causes the deficiency.
- 2) The study area identified in step 1 (above) can be condensed for the SBRA project-specific traffic study based on the greater than 0.01 threshold and deficiency status of the intersections comparing with a traffic run (prepared by Austin-Foust Associates) with no development on the project site compared to the proposed SBRA project land use.

SubTask 3: Data Collection

The following information will need to be collected prior to preparation of the traffic analysis:

1. Existing Traffic Counts: Current (2010 – 2011) traffic counts will be collected for study area intersections. LSA will contact City staff to request the current traffic count data. New counts will be conducted, if needed, for study area intersections where the data is more than one year old.
2. Cumulative Traffic Volumes: Future traffic volumes will be required for analysis of the project in a cumulative setting. For purposes of this analysis, the interim-year analysis will correspond to 2015. LSA will work with the City and its traffic modeling consultant (Austin-Foust Associates) to develop the cumulative volumes for this project. A traffic model data request letter will be submitted to the City itemizing the forecast data required for the analysis.

In addition, LSA will contact City staff for a list of cumulative projects to include in the 2015 condition. The vacant properties identified in the Opportunities Study (including the project site) should be modeled as vacant, unless the City identifies approved land uses to be included in the 2015 baseline condition.

3. Roadway Improvement Plans: LSA will contact the City to obtain information on planned road or intersection improvements scheduled within the cumulative condition. Based on discussions with City staff, the 2015 condition should include the extension of Alton Parkway between Trabuco Road and State Route 241.

SubTask 4: Existing Conditions

An analysis of the existing circulation system within the study area will be reported. Existing a.m. and p.m. peak-hour traffic conditions and levels of service will be assessed for the intersections identified within the study area. Levels of service will be calculated using the intersection capacity utilization (ICU) methodology for signalized intersections and the Highway Capacity Manual methodology for unsignalized intersections (if any). Deficient intersections will be identified as a result of these levels of service calculations.

SubTask 5: Cumulative Conditions

An analysis of the cumulative short term conditions will be prepared that corresponds to the year 2015. For purposes of this analysis, this interim year will represent the build out of the project site.

In the cumulative analysis year 2015, Alton Parkway is assumed to be connected between Towne Centre Drive and Irvine Boulevard. Unless the City identifies approved land uses to be included in the 2015 baseline condition, a linear growth of traffic and development (e.g., 25 percent growth in the OSA) is assumed between now and year 2030 in the LFTAM model for the cumulative analysis purposes.

As described above, the cumulative condition will be developed based on the City's LFTAM traffic model (prepared by Austin-Foust Associates). AFA will provide peak hour turn movement volumes (ICUs) to LSA for intersections as well as ADT volumes for roadways within the study area. Levels of service will be calculated, and deficient intersections will be identified as a result.

SubTask 6: Project Trip Generation, Distribution, and Assignment

Daily, and a.m., and p.m. peak-hour trips will be generated for the proposed project alternatives based on trip rates referenced from the latest Institute of Transportation Engineers *Trip Generation Manual* (8th Edition) and the City's LFTAM model.

The directions of approach to and departure from the site will be obtained based on the LFTAM model distribution. A map indicating regional directions of trip distribution will be presented in the traffic study. The project trip assignment will be based on the LFTAM model assignment for the 2015 condition.

SubTask 7: Project Impact Assessment

Existing Plus Project Conditions. Project traffic will be added to the existing traffic volumes, and peak-hour levels of service will be calculated. This information is for CEQA disclosure purposes only.

For the existing conditions, a special existing version of the LFTAM model would be developed to reflect a highway network with any road that is anticipated to be completed at the time of project buildout. AFA will provide peak hour turn movement volumes (ICUs) to LSA for intersections as well as ADT volumes for roadways within the study area.

For the existing plus project conditions, the proposed project land uses and project circulation would be added to the existing baseline condition. Austin-Foust Associates would use the differential between existing and existing plus project traffic model data and applied to the existing counts. The task will include one project scenario and time spent by Austin-Foust Associates staff to compile the count data into a format usable by AFA. AFA will provide peak hour turn movement volumes (ICUs) for intersections as well as ADT volumes for roadways within the study area.

Cumulative Plus Project Conditions. Project traffic will be added to the cumulative baseline traffic volumes, and peak-hour levels of service will be calculated based on the 2015 LFTAM traffic model runs. Project impacts will be identified, assuming committed improvements to the circulation system (if any). The significance criteria used to determine project impacts will be based on the City's performance guidelines (i.e., ICU increase greater than 0.01). AFA will provide peak hour turn movement volumes (ICUs) for intersections as well as ADT volumes for roadways within the study area.

SubTask 8: Mitigation Measures

Based on the results of the project impact assessment, mitigation measures to the circulation system will be recommended to accommodate the project traffic volumes for the cumulative (2015) conditions. These mitigation measures will include intersection improvements necessary to achieve the City's level of service standards. Any mitigation requirements will be compared to the General Plan mitigation program (LFTM improvements) identified in the Opportunities Study (July 2008).

SubTask 9: 2030 Plus Project Condition – Project Site Evaluation

Since analysis of the project access on the major roads along the periphery of the project is based on worst-case traffic volumes, a long-range 2030 with SBRA project analysis will be conducted for the local access intersections identified in the LFTM Ordinance (7.19.030, F) for Shea/Baker that include:

- 1) Bake Parkway/Rancho Parkway South
- 2) Bake Parkway/Baffin Bay (if access is taken via Baffin Bay)
- 3) Bake Parkway/Rancho Parkway

AFA will provide peak hour turn movement volumes (ICUs) to LSA for these locations. The levels of service will be reported in the study.

SubTask 10: Access and Internal Circulation Analysis

An analysis of project access and internal circulation will be conducted to determine consistency with City design standards. Recommendations, as appropriate, to address potential issues will be developed. The following intersections will be analyzed adjacent to the site:

- Alton Parkway/"C" Street-"B" Street
- Alton Parkway/"E" Street-"B" Street
- "B" Street/"H" Street (internal)
- Bake Parkway/"H" Street (Dimension)

LSA will manually assign the project trip generation to these newly created intersections based on select zone assignments from the LFTAM traffic model (prepared by Austin-Foust Associates). The traffic operations will be evaluated based on the proposed traffic control at each intersection. It should be noted that these locations are not included in the City's LFTAM traffic model. A peak hour signal warrant analysis will be conducted for these unsignalized intersections.

In addition, a phasing analysis will be conducted to identify the timing of internal roadways and intersection turn lanes required for different development phases of the project.

SubTask 11: Draft and Final Traffic Study

A detailed technical study will be prepared that discusses the analysis and forecasting of existing traffic conditions and project opening (2015) traffic conditions both with and without the proposed project. Identification of LFTM roadway improvements required to accommodate project development will be included in the report. The draft report will be submitted to the City for review. Upon completion of the review, a representative of LSA will meet with staff to discuss the TIA and to elicit staff comments. LSA will then modify the draft TIA to address these comments and submit a final report to the City.

APPENDIX B

IRVINE TRAFFIC SENSITIVITY ANALYSIS, MARCH 24, 2011



MEMORANDUM

TO: Bob Woodings, City of Lake Forest
FROM: Krys Saldivar, Associate
DATE: March 24, 2011
SUBJECT: **IRVINE TRAFFIC SENSITIVITY ANALYSIS**

Austin-Foust Associates, Inc. (AFA) has reviewed the traffic forecast data for the locations in the Vacant Land Opportunities Study Area (OSA) that are in the City of Irvine. Since the Vacant Land Opportunities Study Area (OSA) Traffic Study was approved in 2005 and updated in 2007 for the OSA Alternative 7, development project programs have occurred in the City of Irvine as well as the availability of a new city traffic model. The most recent data for the OSA per the approved Alternative 7 conditions presented for Irvine locations in the extended study area were verified with the most recent Irvine Transportation Analysis Model (ITAM), Version 8.4-10.

In a recent review that was summarized in a report dated March 2, 2011, the current ITAM 8.4-10 generates around 10 percent more trips in the OSA development areas compared to the Lake Forest Traffic Analysis Model (LFTAM). The report showed that the uses in ITAM for the OSA areas are similar to those proposed for the OSA under Alternative 7 conditions, however in slightly different amounts. The differences balance out between each vacant land area. Therefore, the current ITAM intersection capacity utilization (ICU) results would apply for analysis of the current OSA development projects including the latest Shea/Baker Ranch Area (SBRA) project since the ITAM essentially includes the OSA projects. The report also recommended that the previous practice of using the LFTAM for analyzing Lake Forest intersections and the ITAM for locations in Irvine continue for future impact analyses involving either city.

The latest ITAM ICU results are summarized in Table 1 along with the previous Alternative 7 results for the extended study area analysis intersections depicted in Figure 1. As can be seen from this table, the results show that one of the three Irvine intersections in the Lake Forest Transportation Mitigation (LFTM) Program no longer requires improvements (#117, Alton Parkway at Toledo Way). Two intersections (#105, Alton Parkway at Irvine Boulevard and #125, Bake Parkway at Rockfield Boulevard) remain impacted. It should be noted that statistically the 10 percent difference in trips mentioned above only translates to around one (1) percent difference at these deficient Irvine intersections. There are no new intersections impacted in Irvine. With these results verifying that impacts to Irvine are no worse than previously presented, no revisions are being proposed to the overall OSA study area (including the extended study area).

If you have any questions or comments regarding this technical memo, please do not hesitate to contact me via phone (714-667-0496) or e-mail (krys@austinfoust.com).

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Table 1

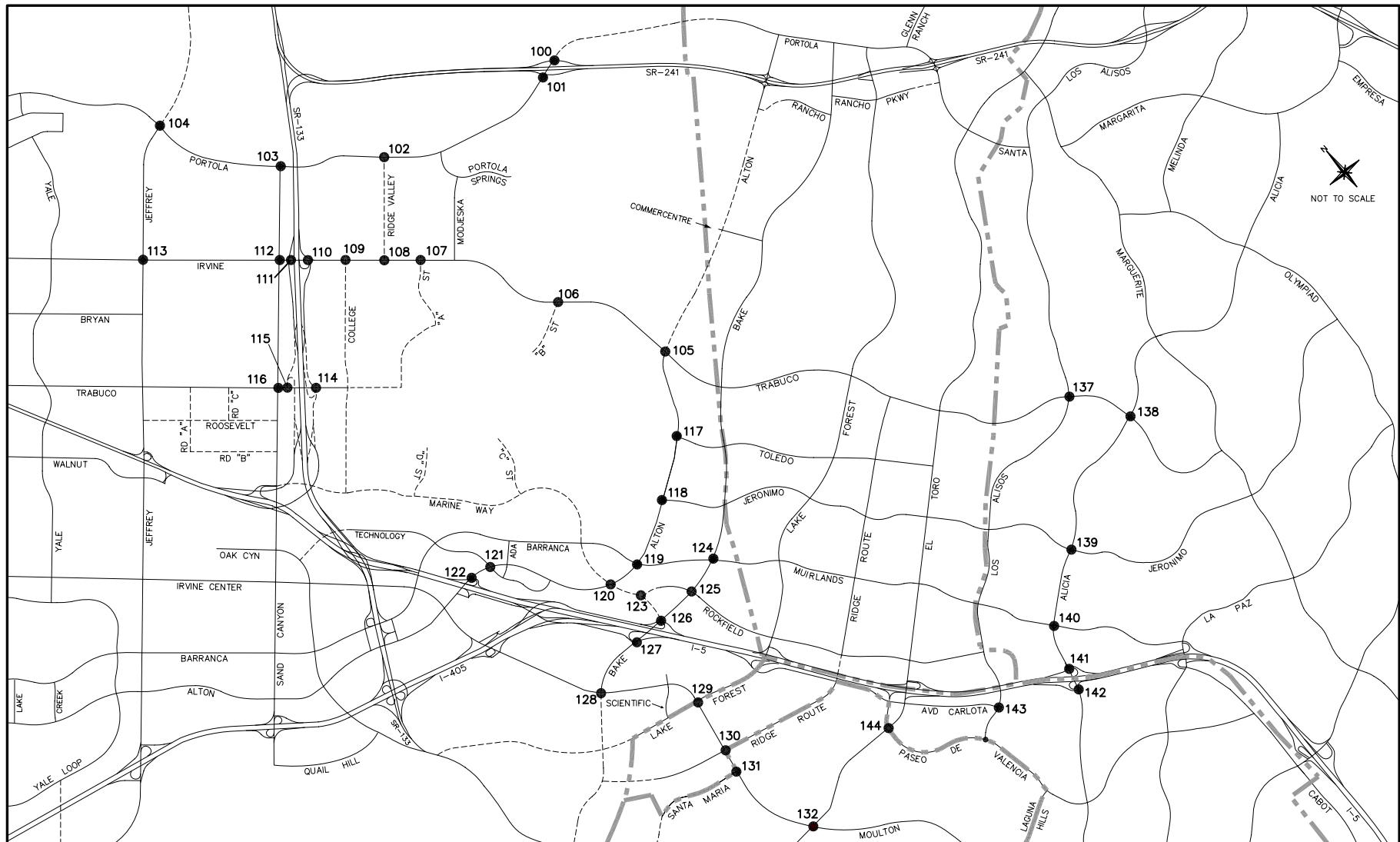
POST-2030 EXTENDED STUDY AREA INTERSECTION LOS SUMMARY

Intersection	ITAM OSA Alternative 7				ITAM 8.4-10				Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
100. Portola Pkwy. at SR-241 NB Ramps	.60	A	.74	C	.57	A	.40	A	-.03	-.34
101. Portola Pkwy. at SR-241 SB Ramps	.56	A	.52	A	.45	A	.42	A	-.11	-.10
102. Ridge Valley at Portola Pkwy.	.57	A	.90	D	.65	A	.60	A	.08	-.30
103. Sand Canyon Av. at Portola Pkwy.	.74	C	.71	C	.51	C	.58	A	-.23	-.13
104. Jeffrey Rd. at Portola Pkwy.	.76	C	.62	B	.70	C	.64	B	-.06	.02
105. Alton Pkwy. at Irvine Bl.	.90	D	1.01	F	1.02	D	1.00	E	.12	-.01
With-Mitigation	.76	C	.93	E	.92	C	.89	D	.16	-.04
106. B St. at Irvine Bl.	.81	D	.75	C	.78	D	.77	C	-.03	.02
107. A St. at Irvine Bl.	.81	D	.84	D	.64	D	.62	B	-.17	-.22
108. Ridge Valley at Irvine Bl.	.74	C	.80	C	.73	C	.73	C	-.01	-.07
109. O St. at Irvine Bl.	.76	C	.66	B	.63	C	.74	C	-.13	.08
110. SR-133 NB Ramps at Irvine Bl.	.85	D	.73	C	.90	D	.76	C	.05	.03
111. SR-133 SB Ramps at Irvine Bl.	.79	C	.61	B	.62	C	.61	B	-.17	.00
112. Sand Canyon. Av. at Irvine Bl.	.85	D	.78	C	.75	D	.76	C	-.10	-.02
113. Jeffrey Rd. at Irvine Bl.	.83	D	.87	D	.78	D	.72	C	-.05	-.15
114. SR-133 NB Ramps at Trabuco	.59	A	.53	A	.61	A	.59	A	.02	.06
115. SR-133 SB Ramps at Trabuco	.57	A	.50	A	.47	A	.48	A	-.10	-.02
116. Sand Canyon. Av. at Trabuco	.84	D	.82	D	.73	D	.69	B	-.11	-.13
117. Alton Pkwy. at Toledo Wy.	.72	C	.92	E	.70	C	.70	B	-.02	-.22
118. Alton Pkwy. at Jeronimo Rd.	.72	C	.77	C	.67	C	.55	A	-.05	-.22
119. Alton Pkwy. at Barranca Pkwy.	.81	D	.87	D	.56	D	.64	B	-.25	-.23
120. Marine Wy. at Alton Pkwy.	.87	D	.87	D	.66	D	.65	B	-.21	-.22
121. Alton Pkwy. at Technology	.82	D	.84	D	.60	D	.87	D	-.22	.03
122. Alton Pkwy. at I-5 NB Ramps	.97	E	.58	A	.90	E	.51	A	-.07	-.07
123. Marine Wy. at Rockfield Bl.	.53	A	.56	A	.79	A	.67	B	.26	.11
124. Bake Pkwy. at Muirlands Bl.	.82	D	.85	D	.75	D	.92	E	-.07	.07
125. Bake Pkwy. at Rockfield Bl.	.69	B	.92	E	.76	B	.92	E	.07	.00
With-Mitigation	.76	C	.93	E	.74	C	.85	D	-.02	-.08
126. Bake Pkwy. at I-5 NB Ramps	.99	E	.93	E	.81	E	.58	A	-.18	-.35
127. Bake Pkwy. at I-5 SB Ramps	.87	D	.92	E	.81	D	.86	D	-.06	-.06
128. Bake Pkwy. at ICD	.42	A	.45	A	.53	A	.51	A	.11	.06
129. Lake Forest Dr. at ICD	.73	C	.82	D	.43	C	.56	A	-.30	-.26
130. Ridge Route at Moulton Pkwy.	.58	A	1.12	F	.53	A	.78	C	-.05	-.34
131. Santa Maria Av. at Moulton Pkwy.	.99	E	.99	E	.50	E	.60	A	-.49	-.39
132. El Toro Rd. at Moulton Pkwy.	1.18	F	1.02	F	.85	F	.92	E	-.33	-.10

Table 1 (cont)

POST-2030 EXTENDED STUDY AREA INTERSECTION LOS SUMMARY

Intersection	ITAM OSA Alternative 7				ITAM 8.4-10				Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
137. Los Alisos Bl. at Trabuco	.94	E	.79	C	.69	E	.74	C	-.25	-.05
138. Trabuco Rd. at Alicia Pkwy.	.74	C	.94	E	.78	C	.92	E	.04	-.02
139. Jeronimo Rd. at Alicia Pk	.74	C	.78	C	.78	C	.78	C	.04	.00
140. Alicia Pkwy. at Muirlands Bl.	.92	E	.98	E	.67	E	.83	D	-.25	-.15
141. I-5 NB Ramps at Alicia Pkwy.	.39	A	.73	C	.44	A	.68	B	.05	-.05
142. I-5 SB Ramps at Alicia Pkwy.	.70	B	.76	C	.67	B	.75	C	-.03	-.01
143. Los Alisos Bl. at Avd. Carlota	.53	A	.73	C	.52	A	.61	B	-.01	-.12
144. El Toro Rd. at Paseo de Valencia	.64	B	.68	B	.69	B	.85	D	.05	.17



Legend

- City of Lake Forest Limits
- Future Roadway

Figure 1

INTERSECTION LOCATIONS ANALYZED WITHIN
THE EXENDED STUDY AREA

100 . Portola Pkwy. at SR-241 NB Ramps

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	31 .02	16 .01		
NBT	2	3400	1157 .34*	972 .29*		
NBR	0	0	0	0		
SBL	0	0	0	0		
SBT	2	3400	918 .27	818 .24		
SBR	1	1700	89 .05	27 .02		
EBL	0	0	0	0		
EBT	0	0	0	0		
EBR	0	0	0	0		
WBL	1.5		568	202		
WBT	0	3400	1 .18*	2 .06*		
WBR	0.5		27	4		
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .57 .40

101 . Portola Pkwy. at SR-241 SB Ramps

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	1.5	5100	967 .28	776 .23		
NBR	1.5		162 .10	335 .20		
SBL	1	1700	8 .00	75 .04		
SBT	2	3400	1245 .37*	985 .29*		
SBR	0	0	0	0		
EBL	0.5		43 .03*	134 .08*		
EBT	0	3400	1	0		
EBR	1.5		5	5		
WBL	0	0	0	0		
WBT	0	0	0	0		
WBR	0	0	0	0		
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .45 .42

102 . Ridge Valley at Portola Pkwy.

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	163 .10*	197 .12*		
NBT	1	1700	12 .01	78 .05		
NBR	d	1700	51 .03	286 .17		
SBL	1	1700	132 .08	29 .02		
SBT	2	3400	68 .02*	48 .01*		
SBR	1	1700	27 .02	24 .01		
EBL	1	1700	27 .02	8 .00		
EBT	2	3400	957 .28*	1195 .35*		
EBR	d	1700	217 .13	147 .09		
WBL	1	1700	334 .20*	95 .06*		
WBT	2	3400	1350 .40	1049 .31		
WBR	d	1700	22 .01	94 .06		
Right Turn Adjustment			NBR	.01*		
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .65 .60

103 . Sand Canyon. Av. at Portola Pkwy.

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	188 .06*	612 .18*		
NBT	0	0	0	0		
NBR	2	3400	447 .13	458 .13		
SBL	0	0	0	0		
SBT	0	0	0	0		
SBR	0	0	0	0		
EBL	0	0	0	0		
EBT	2	3400	843 .25*	765 .23*		
EBR	f		647	187		
WBL	2	3400	513 .15*	415 .12*		
WBT	2	3400	1012 .30	983 .29		
WBR	0	0	0	0		
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .51 .58

104 . Jeffrey Rd. at Portola Pkwy.

105 . Alton Pkwy. at Irvine Bl.

ITAM8.4-10							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	913	.27*	791	.23*	
NBT	2	3400	229	.07	223	.07	
NBR	1	1700	58	.03	136	.08	
SBL	2	3400	363	.11	379	.11	
SBT	3	5100	410	.09*	239	.06*	
SBR	0	0	62		72		
EBL	2	3400	130	.04	328	.10	
EBT	3	5100	1039	.20*	775	.15*	
EBR	1	1700	614	.36	338	.20	
WBL	2	3400	296	.09*	503	.15*	
WBT	3	5100	825	.16	668	.13	
WBR	d	1700	151	.09	159	.09	
Clearance Interval				.05*		.05*	
Note: Assumes Right-Turn Overlap for EBR							

TOTAL CAPACITY UTILIZATION .70 .64

ITAM8.4-10							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	228	.07*	794	.23*	
NBT	3	5100	535	.10	1249	.24	
NBR	f		138			268	
SBL	2	3400	300	.09	263	.08	
SBT	3	5100	1434	.28*	682	.13*	
SBR	f		509			766	
EBL	2.5		637	.19	566	.17	
EBT	2.5	8500	1452	.28*	1119	.22*	
EBR	1	1700	794	.47	314	.18	
WBL	2	3400	333	.10	194	.06	
WBT	3	5100	1023	.20*	1891	.37*	
WBR	1	1700	257	.15	336	.20	
Right Turn Adjustment				EBR	.14*		
Clearance Interval					.05*		.05*
Note: Assumes E/W Split Phasing							

TOTAL CAPACITY UTILIZATION 1.02 1.00

106 . B St. at Irvine Bl.

107 . A St. at Irvine Bl.

ITAM8.4-10							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	160	.05	105	.03	
NBT	1	1700	19	.16*	29	.08*	
NBR	0	0	252		107		
SBL	1	1700	107	.06*	43	.03*	
SBT	1	1700	25	.06	27	.04	
SBR	0	0	69		41		
EBL	1	1700	27	.02	59	.03*	
EBT	3	5100	2522	.49*	1870	.37	
EBR	1	1700	71	.04	139	.08	
WBL	2	3400	64	.02*	214	.06	
WBT	3	5100	1951	.39	2874	.58*	
WBR	0	0	24		91		
Clearance Interval				.05*		.05*	

TOTAL CAPACITY UTILIZATION .78 .77

ITAM8.4-10							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	30	.01*	248	.07*	
NBT	0	0	0		0		
NBR	1	1700	124	.07	316	.19	
SBL	0	0	0		0		
SBT	0	0	0		0		
SBR	0	0	0		0		
EBL	0	0	0		0		
EBT	3	5100	2196	.43*	1734	.34	
EBR	1	1700	167	.10	136	.08	
WBL	2	3400	513	.15*	274	.08	
WBT	3	5100	1720	.34	2522	.49*	
WBR	0	0	0		0		
Right Turn Adjustment					NBR	.01*	
Clearance Interval					.05*		.05*

TOTAL CAPACITY UTILIZATION .64 .62

108 . Ridge Valley at Irvine Bl.

ITAM8.4-10							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	0	0	0		0		
NBT	0	0	0		0		
NBR	0	0	0		0		
SBL	2	3400	495	.15*	138	.04*	
SBT	0	0	0		0		
SBR	1	1700	536	.32	283	.17	
EBL	2	3400	112	.03	445	.13*	
EBT	3	5100	2230	.44*	1442	.28	
EBR	0	0	0		0		
WBL	0	0	0		0		
WBT	3	5100	1678	.33	2437	.48*	
WBR	1	1700	78	.05	365	.21	
Right Turn Adjustment		SBR	.09*		SBR	.03*	
Clearance Interval			.05*			.05*	

TOTAL CAPACITY UTILIZATION .73 .73

109 . O St. at Irvine Bl.

ITAM8.4-10							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3400	113	.03	401	.12	
NBT	1	1700	8	.05*	17	.16*	
NBR	0	0	70		252		
SBL	1	1700	14	.01*	21	.01*	
SBT	1	1700	23	.01	16	.01	
SBR	1	1700	23	.01	34	.02	
EBL	1	1700	35	.02	23	.01*	
EBT	3	5100	2305	.45*	1698	.33	
EBR	1	1700	440	.26	150	.09	
WBL	2	3400	227	.07*	134	.04	
WBT	3	5100	2054	.41	2625	.51*	
WBR	0	0	18		0		
Clearance Interval					.05*		.05*

TOTAL CAPACITY UTILIZATION .63 .74

110 . SR-133 NB Ramps at Irvine Bl.

ITAM8.4-10							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	1	1700	85	.05*	189	.11*	
NBT	0	0	0		0		
NBR	1	1700	165	.10	352	.21	
SBL	0	0	0		0		
SBT	0	0	0		0		
SBR	0	0	0		0		
EBL	0	0	0		0		
EBT	2	3400	2535	.75*	1448	.43	
EBR	f		120		200		
WBL	0	0	0		0		
WBT	3	5100	1805	.39	2741	.60*	
WBR	0	0	160		330		
Right Turn Adjustment		NBR	.05*				
Clearance Interval			.05*		.05*		

TOTAL CAPACITY UTILIZATION .90 .76

111 . SR-133 SB Ramps at Irvine Bl.

ITAM8.4-10							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	0	0	0		0		
NBT	0	0	0		0		
NBR	0	0	0		0		
SBL	1	1700	296	.17*	42	.02*	
SBT	0	0	0		0		
SBR	2	3400	175	.05	108	.03	
EBL	0	0	0		0		
EBT	4	6800	2324	.34*	1478	.22	
EBR	d	1700	211	.12	145	.09	
WBL	2	3400	199	.06*	205	.06	
WBT	3	5100	1625	.32	2682	.53*	
WBR	0	0	0		0		
Right Turn Adjustment						SBR	.01*
Clearance Interval					.05*		.05*

TOTAL CAPACITY UTILIZATION .62 .61

112 . Sand Canyon. Av. at Irvine Bl.

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	88 .03*	461 .14*		
NBT	3	5100	550 .11	822 .16		
NBR	2	3400	290 .09	450 .13		
SBL	2	3400	532 .16	141 .04		
SBT	2	3400	938 .28*	523 .15*		
SBR	1	1700	109 .06	257 .15		
EBL	2	3400	272 .08	172 .05*		
EBT	4	6800	1681 .25*	1030 .15		
EBR	1	1700	313 .18	129 .08		
WBL	2	3400	471 .14*	388 .11		
WBT	3	5100	1305 .26	1902 .37*		
WBR	1	1700	168 .10	536 .32		
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .75 .76

113 . Jeffrey Rd. at Irvine Bl.

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	154 .05*	436 .13		
NBT	3	5100	685 .13	940 .18*		
NBR	f		302	385		
SBL	2	3400	401 .12	277 .08*		
SBT	3	5100	1352 .27*	575 .11		
SBR	1	1700	148 .09	208 .12		
EBL	2	3400	166 .05	111 .03*		
EBT	3	5100	1667 .33*	1312 .26		
EBR	d	1700	320 .19	268 .16		
WBL	2	3400	268 .08*	288 .08		
WBT	3	5100	1748 .34	1950 .38*		
WBR	d	1700	259 .15	411 .24		
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .78 .72

114 . SR-133 NB Ramps at Trabuco Rd.

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	2	3400	146 .04*	326 .10*		
NBT	0	0	0	0		
NBR	2	3400	933 .27	465 .14		
SBL	0	0	0	0		
SBT	0	0	0	0		
SBR	0	0	0	0		
EBL	0	0	0	0		
EBT	2	3400	937 .28*	725 .21*		
EBR	f		28	168		
WBL	1	1700	102 .06*	392 .23*		
WBT	2	3400	544 .16	1184 .35		
WBR	0	0	0	0		
Right Turn Adjustment	NBR		.18*			
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .61 .59

115 . SR-133 SB Ramps at Trabuco Rd.

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0	0	0	0		
NBT	0	0	0	0		
NBR	0	0	0	0		
SBL	1	1700	313 .18*	145 .09*		
SBT	0	0	0	0		
SBR	2	3400	380 .11	96 .03		
EBL	0	0	0	0		
EBT	2	3400	637 .19*	745 .22*		
EBR	1	1700	257 .15	191 .11		
WBL	2	3400	173 .05*	419 .12*		
WBT	2	3400	520 .15	1084 .32		
WBR	0	0	0	0		
Clearance Interval			.05*	.05*		

TOTAL CAPACITY UTILIZATION .47 .48

116 . Sand Canyon. Av. at Trabuco Pkwy.

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	264	.08*	725	.21
NBT	3	5100	586	.11	2055	.40*
NBR	f		196		309	
SBL	2	3400	222	.07	225	.07*
SBT	3	5100	2292	.45*	856	.17
SBR	1	1700	96	.06	150	.09
EBL	2	3400	188	.06*	159	.05
EBT	3	5100	292	.06	316	.06*
EBR	f		792		245	
WBL	2	3400	257	.08	359	.11*
WBT	3	5100	441	.09*	355	.07
WBR	d	1700	176	.10	296	.17
Clearance Interval			.05*		.05*	

TOTAL CAPACITY UTILIZATION .73 .69

117 . Alton Pkwy. at Toledo Wy.

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	85	.05*	34	.02
NBT	3	5100	1287	.25	2099	.41*
NBR	f		105		289	
SBL	1	1700	84	.05	45	.03*
SBT	3	5100	1999	.40*	1166	.23
SBR	0	0	27		16	
EBL	1	1700	9	.01	34	.02
EBT	1	1700	41	.06*	56	.13*
EBR	0	0	61		169	
WBL	1	1700	240	.14*	135	.08*
WBT	1	1700	48	.03	20	.01
WBR	1	1700	185	.11	106	.06
Clearance Interval			.05*		.05*	

TOTAL CAPACITY UTILIZATION .70 .70

118 . Alton Pkwy. at Jeronimo Rd.

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	155	.09*	18	.01
NBT	3	5100	1323	.26	1934	.38*
NBR	f		217		301	
SBL	2	3400	108	.03	87	.03*
SBT	3	5100	1996	.41*	1753	.35
SBR	0	0	72		10	
EBL	1	1700	13	.01	47	.03
EBT	1	1700	11	.01*	22	.01*
EBR	f		26		124	
WBL	2	3400	362	.11*	264	.08*
WBT	1	1700	38	.02	13	.01
WBR	1	1700	111	.07	129	.08
Clearance Interval			.05*		.05*	

TOTAL CAPACITY UTILIZATION .67 .55

119 . Alton Pkwy. at Barranca Pkwy./Muirlands Bl.

ITAM8.4-10						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	4	.00	16	.01
NBT	3	5100	1047	.21*	985	.19*
NBR	f		113		326	
SBL	2	3400	102	.03*	184	.05*
SBT	3	5100	1111	.22	1079	.21
SBR	f		997		803	
EBL	2.5		649	.13*	1074	
EBT	1.5	6800	171	.11	490	.23*
EBR	0		8		5	
WBL	2	3400	187	.06	106	.03
WBT	2	3400	368	.14*	271	.12*
WBR	0	0	121		121	
Clearance Interval			.05*		.05*	

Note: Assumes E/W Split Phasing

TOTAL CAPACITY UTILIZATION .56 .64

120 . Marine Wy. at Alton Pkwy.

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	745	.22*	646	.19*	
NBT	2	3400	590	.17	425	.13	
NBR	1	1700	268	.16	241	.14	
SBL	1	1700	80	.05	83	.05	
SBT	2	3400	325	.10*	496	.15*	
SBR	1	1700	216	.13	231	.14	
EBL	2	3400	233	.07*	190	.06	
EBT	3	5100	952	.19	996	.20*	
EBR	f		446		652		
WBL	2	3400	189	.06	213	.06*	
WBT	3	5100	1128	.22*	903	.18	
WBR	1	1700	96	.06	65	.04	
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION			.66		.65		

121 . Alton Pkwy. at Technology Dr. W.

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	886	.26*	631	.19*	
NBT	3	5100	1759	.34	972	.19	
NBR	1	1700	727	.43	141	.08	
SBL	1	1700	78	.05	35	.02	
SBT	4	6800	1432	.21*	1953	.29*	
SBR	1	1700	230	.14	289	.17	
EBL	1.5		179		473	.14*	
EBT	1.5	5100	115	.06*	94	.06	
EBR	2	3400	242	.07	1233	.36	
WBL	2.5		66	.02	880	.17*	
WBT	1.5	6800	74	.02*	151	.09	
WBR	d	1700	12	.01	27	.02	
Right Turn Adjustment							EBR .03*
Clearance Interval						.05*	.05*
Note: Assumes E/W Split Phasing							
Note: Assumes Right-Turn Overlap for EBR							
TOTAL CAPACITY UTILIZATION			.60		.87		

122 . Alton Pkwy. at I-5 NB Ramps

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	0	0	0		0		
NBT	3	5100	2538	.50*	1519	.30	
NBR	f		80		570		
SBL	0	0	0		0		
SBT	3	5100	1391	.27	2101	.41*	
SBR	f		330		1290		
EBL	0	0	0		0		
EBT	0	0	0		0		
EBR	0	0	0		0		
WBL	2.5		569	.17*	159	.05*	
WBT	0	5100	0		0		
WBR	0.5		602	.35	151	.09	
Right Turn Adjustment		WBR	.18*				
Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.90		.51		

123 . Marine Wy. at Rockfield Bl.

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	1	1700	17	.01	5	.00	
NBT	2	3400	1009	.30*	541	.16*	
NBR	1	1700	40	.02	31	.02	
SBL	1	1700	301	.18*	425	.25*	
SBT	2	3400	339	.10	860	.25	
SBR	1	1700	125	.07	77	.05	
EBL	1	1700	49	.03*	133	.08*	
EBT	1	1700	19	.01	74	.05	
EBR	0	0	2		16		
WBL	1	1700	29	.02	64	.04	
WBT	1	1700	98	.06*	47	.03*	
WBR	1	1700	622	.37	536	.32	
Right Turn Adjustment		WBR	.17*		WBR	.10*	
Clearance Interval			.05*		.05*	.05*	
TOTAL CAPACITY UTILIZATION			.79		.67		

124 . Bake Pkwy. at Muirlands Bl.

125 . Bake Pkwy. at Rockfield Bl.

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	179	.05	36	.01	
NBT	4	6800	3103	.46*	2754	.41*	
NBR	f		143		307		
SBL	2	3400	94	.03*	236	.07*	
SBT	4	6800	2606	.38	2076	.31	
SBR	f		192		69		
EBL	2	3400	33	.01*	288	.08	
EBT	2	3400	193	.06	1128	.33*	
EBR	f		26		30		
WBL	2	3400	398	.12	189	.06*	
WBT	2	3400	668	.20*	272	.08	
WBR	f		114		157		
Clearance Interval			.05*		.05*		

TOTAL CAPACITY UTILIZATION .75 .92

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	721	.21*	172	.05	
NBT	4	6800	3121	.46	2938	.43*	
NBR	f		383		185		
SBL	2	3400	325	.10	469	.14*	
SBT	4	6800	2525	.37*	1705	.25	
SBR	1	1700	78	.05	107	.06	
EBL	1	1700	19	.01	62	.04	
EBT	2	3400	192	.06*	316	.09*	
EBR	f		75		596		
WBL	2	3400	240	.07*	700	.21*	
WBT	2	3400	351	.10	332	.10	
WBR	f		149		209		
Clearance Interval			.05*		.05*		

TOTAL CAPACITY UTILIZATION .76 .92

126 . Bake Pkwy. at I-5 NB Ramps

ITAM8.4-10							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	0		0		
NBT	4	6800	3604	.53*	3002	.44*	
NBR	f		320		1000		
SBL	0	0	0		0		
SBT	3	5100	1193	.23	1964	.39	
SBR	0	0	0		0		
EBL	0	0	0		0		
EBT	0	0	0		0		
EBR	0	0	0		0		
WBL	1	1700	157	.09*	136	.08*	
WBT	0	0	0		0		
WBR	3	5100	1176	.23	448	.09	
Right Turn Adjustment		WBR	.14*		WBR	.01*	
Clearance Interval			.05*		.05*		

TOTAL CAPACITY UTILIZATION .81 .58

127 . Bake Pkwy. at I-5 SB Ramps

ITAM8.4-10							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	0	0	0		0		
NBT	3	5100	1383	.27*	1972	.39*	
NBR	0	0	0		0		
SBL	0	0	0		0		
SBT	3	5100	1032	.20	1360	.27	
SBR	f		372		855		
EBL	3	5100	2487	.49*	2167	.42*	
EBT	0	0	0		0		
EBR	1	1700	506	.30	267	.16	
WBL	0	0	0		0		
WBT	0	0	0		0		
WBR	0	0	0		0		
Clearance Interval			.05*		.05*		

TOTAL CAPACITY UTILIZATION .81 .86

128 . Bake Pkwy. at ICD

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	136	.04	223	.07	
NBT	3	5100	588	.12*	242	.05*	
NBR	d	1700	90	.05	25	.01	
SBL	2	3400	313	.09*	560	.16*	
SBT	3	5100	170	.03	572	.11	
SBR	1	1700	274	.16	137	.08	
EBL	2	3400	209	.06*	163	.05	
EBT	3	5100	789	.15	1212	.24*	
EBR	f		123		182		
WBL	2	3400	7	.00	37	.01*	
WBT	4	6800	783	.12*	812	.12	
WBR	d	1700	478	.28	344	.20	
Right Turn Adjustment		WBR		.09*			
Clearance Interval				.05*			.05*

TOTAL CAPACITY UTILIZATION .53 .51

129 . Lake Forest Dr. at ICD

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	43	.01	85	.03	
NBT	3	5100	264	.05*	538	.11*	
NBR	1	1700	106	.06	98	.06	
SBL	2	3400	331	.10*	383	.11*	
SBT	3	5100	478	.09	298	.06	
SBR	f		62		184		
EBL	2	3400	55	.02*	209	.06	
EBT	3	5100	493	.10	1180	.23*	
EBR	d	1700	82	.05	126	.07	
WBL	2	3400	260	.08	206	.06*	
WBT	3	5100	1064	.21*	661	.13	
WBR	1	1700	251	.15	483	.28	
Clearance Interval				.05*			.05*

TOTAL CAPACITY UTILIZATION .43 .56

130 . Ridge Route at Moulton Pkwy.

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	1	1700	46	.03*	127	.07	
NBT	2	3400	162	.05	298	.09*	
NBR	1	1700	113	.07	485	.29	
SBL	2	3400	233	.07	448	.13*	
SBT	2	3400	401	.12*	226	.07	
SBR	1	1700	43	.03	38	.02	
EBL	2	3400	12	.00	43	.01	
EBT	4	6800	659	.12	1963	.29*	
EBR	0	0	125		43		
WBL	2	3400	499	.15	302	.09*	
WBT	4	6800	2229	.33*	997	.15	
WBR	1	1700	277	.16	200	.12	
Right Turn Adjustment				NBR	.13*		
Clearance Interval			.05*		.05*		.05*

TOTAL CAPACITY UTILIZATION .53 .78

131 . Santa Maria Av. at Moulton Pkwy.

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	1.5		99	.03*	100	{.03}*	
NBT	0	5100	0		0	{.03}	
NBR	1.5		269		216		
SBL	0		0		0		
SBT	0		0		0		
SBR	0		0		0		
EBL	0		0		0		
EBT	4	6800	874	.13	2664	.40*	
EBR	0		38		85		
WBL	1	1700	214	.13	205	.12*	
WBT	4	6800	2885	.42*	1370	.20	
WBR	0		0		0		
Clearance Interval				.05*			.05*

TOTAL CAPACITY UTILIZATION .50 .60

132 . El Toro Rd. at Moulton Pkwy.

137 . Los Alisos Bl. at Trabuco Rd.

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	493	.15*	235	.07	
NBT	3	5100	743	.15	759	.15*	
NBR	1	1700	176	.10	245	.14	
SBL	2	3400	385	.11	514	.15*	
SBT	3	5100	544	.11*	782	.15	
SBR	1	1700	233	.14	334	.20	
EBL	2	3400	155	.05*	272	.08	
EBT	3	5100	729	.14	2470	.48*	
EBR	1	1700	149	.09	370	.22	
WBL	2	3400	327	.10	308	.09*	
WBT	3	5100	2504	.49*	961	.19	
WBR	1	1700	233	.14	319	.19	
Clearance Interval			.05*		.05*		
Note: Assumes Right-Turn Overlap for EBR							

TOTAL CAPACITY UTILIZATION .85 .92

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	235	.07*	198	.06	
NBT	3	5100	353	.09	720	.21*	
NBR	0	0	102		350		
SBL	1	1700	112	.07	132	.08*	
SBT	3	5100	1246	.24*	691	.14	
SBR	d	1700	283	.17	93	.05	
EBL	1	1700	144	.08*	340	.20	
EBT	2	3400	443	.13	918	.27*	
EBR	d	1700	203	.12	92	.05	
WBL	1	1700	247	.15	227	.13*	
WBT	2	3400	865	.25*	558	.16	
WBR	d	1700	47	.03	60	.04	
Clearance Interval			.05*		.05*		

TOTAL CAPACITY UTILIZATION .69 .74

138 . Trabuco Rd. at Alicia Pkwy.

139 . Jeronimo Rd. at Alicia Pkwy.

ITAM8.4-10							
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C	
NBL	1	1700	282	.17	206	.12	
NBT	2	3400	671	.20*	411	.12*	
NBR	d	1700	80	.05	45	.03	
SBL	1	1700	197	.12*	647	.38*	
SBT	2	3400	325	.10	743	.22	
SBR	d	1700	131	.08	117	.07	
EBL	1	1700	209	.12*	241	.14*	
EBT	3	5100	1052	.21	1369	.27	
EBR	d	1700	68	.04	168	.10	
WBL	1	1700	77	.05	109	.06	
WBT	3	5100	1497	.29*	1157	.23*	
WBR	d	1700	380	.22	208	.12	
Clearance Interval			.05*		.05*		

TOTAL CAPACITY UTILIZATION .78 .92

ITAM8.4-10							
	LANES	CAPACITY	AM PK HOUR VOL	HOUR V/C	PM PK HOUR VOL	HOUR V/C	
NBL	2	3400	586	.17*	291	.09*	
NBT	2	3400	814	.24	395	.12	
NBR	1	1700	160	.09	125	.07	
SBL	2	3400	93	.03	214	.06	
SBT	2	3400	426	.13*	733	.22*	
SBR	1	1700	257	.15	485	.29	
EBL	2	3400	434	.13*	344	.10	
EBT	3	5100	1167	.23	1841	.36*	
EBR	1	1700	231	.14	529	.31	
WBL	2	3400	154	.05	188	.06*	
WBT	3	5100	1527	.30*	1313	.26	
WBR	1	1700	232	.14	121	.07	
Clearance Interval			.05*		.05*		

TOTAL CAPACITY UTILIZATION .78 .78

140 . Alicia Pkwy. at Muirlands Bl.

141 . I-5 NB Ramps at Alicia Pkwy.

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	302	.09*	420	.12	
NBT	3	5100	1611	.32	2194	.43*	
NBR	1	1700	45	.03	199	.12	
SBL	2	3400	148	.04	255	.08*	
SBT	4	6800	1888	.30*	1769	.29	
SBR	0	0	145		169		
EBL	2	3400	109	.03*	165	.05	
EBT	2	3400	338	.10	796	.23*	
EBR	1	1700	411	.24	441	.26	
WBL	2	3400	135	.04	130	.04*	
WBT	2	3400	683	.20*	490	.14	
WBR	1	1700	354	.21	271	.16	
Clearance Interval				.05*		.05*	
Note: Assumes Right-Turn Overlap for EBR							

TOTAL CAPACITY UTILIZATION .67 .83

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	1.5				137	{.06}* [*]	399 {.21}*
NBT	0	5100			0	.06	0 .21
NBR	1.5				173		684
SBL	0		0		0		0
SBT	0		0		0		0
SBR	0		0		0		0
EBL	0		0		0		0
EBT	3	5100	1677		.33*	2146	.42*
EBR	f				1310		820
WBL	0		0		0		0
WBT	3	5100	1573		.31	1591	.31
WBR	f				1230		880
Clearance Interval					.05*		.05*

TOTAL CAPACITY UTILIZATION .44 .68

142 . I-5 SB Ramps at Alicia Pkwy.

143 . Los Alisos Bl. at Avenida Carlota

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	0	0	0		0		
NBT	0	0	0		0		
NBR	0	0	0		0		
SBL	2.5		1204		1040		
SBT	0	6800	0	{.28}*	0	{.30}*	
SBR	1.5		893		1160		
EBL	0	0	0		0		
EBT	3	5100	1746	.34*	2027	.40*	
EBR	f		150		204		
WBL	0	0	0		0		
WBT	3	5100	977	.19	1252	.25	
WBR	f		810		756		
Clearance Interval				.05*		.05*	

TOTAL CAPACITY UTILIZATION .67 .75

ITAM8.4-10							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	440	.13*	256	.08*	
NBT	3	5100	1273	.25	1173	.23	
NBR	0	0	3		6		
SBL	1	1700	7	.00	15	.01	
SBT	3	5100	982	.19*	1226	.24*	
SBR	d	1700	350	.21	246	.14	
EBL	1.5		497		792		
EBT	0.5	3400	3	.15*	9	.24*	
EBR	1	1700	208	.12	478	.28	
WBL	0	0	0		0		
WBT	1	1700	0	.00*	0	.00*	
WBR	d	1700	0	.00	0	.00	
Clearance Interval					.05*		.05*

TOTAL CAPACITY UTILIZATION .52 .61

Note: Assumes E/W Split Phasing

144 . El Toro Rd. at Paseo de Valencia

ITAM8.4-10						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	123	.04	145	.04
NBT	3	5100	601	.12*	906	.18*
NBR	1	1700	358	.21	380	.22
SBL	2	3400	275	.08*	385	.11*
SBT	3	5100	524	.11	851	.17
SBR	0	0	13		39	
EBL	1	1700	16	.01	75	.04
EBT	2	3400	1076	.32*	1305	.38*
EBR	1	1700	262	.15	294	.17
WBL	2	3400	413	.12*	455	.13*
WBT	1	1700	345	.20	305	.18
WBR	1	1700	253	.15	379	.22
Clearance Interval				.05*		.05*
Note: Assumes Right-Turn Overlap for WBR NBR EBR						
TOTAL CAPACITY UTILIZATION			.69		.85	

105 . Alton Pkwy. at Irvine Bl.

117 . Alton Pkwy. at Toledo Wy.

ITAM8.4-10 w/Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	228	.07*	794	.23*
NBT	3	5100	535	.10	1249	.24
NBR	f		138		268	
SBL	2	3400	300	.09	263	.08
SBT	3	5100	1434	.28*	682	.13*
SBR	f		509		766	
EBL	3	5100	637	.12	566	.11*
EBT	3	5100	1452	.28*	1119	.22
EBR	d	1700	794	.47	314	.18
WBL	2	3400	333	.10*	194	.06
WBT	3	5100	1023	.20	1891	.37*
WBR	1	1700	257	.15	336	.20
Right Turn Adjustment		EBR	.14*			
Clearance Interval			.05*		.05*	

TOTAL CAPACITY UTILIZATION .92 .89

ITAM8.4-10 w/Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	85	.05*	34	.02
NBT	3	5100	1287	.25	2099	.41*
NBR	f		105		289	
SBL	1	1700	84	.05	45	.03*
SBT	3	5100	1999	.40*	1166	.23
SBR	0	0	27		16	
EBL	1	1700	9	.01	34	.02
EBT	1	1700	41	.06*	56	.13*
EBR	0	0	61		169	
WBL	1	1700	240	.14*	135	.08*
WBT	1	1700	48	.03	20	.01
WBR	1	1700	185	.11	106	.06
Clearance Interval				.05*		.05*
Note: Assumes Right-Turn Overlap for WBR						

TOTAL CAPACITY UTILIZATION .70 .70

125 . Bake Pkwy. at Rockfield Bl.

ITAM8.4-10 w/Mitigation						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	721	.21*	172	.05
NBT	4	6800	3121	.46	2938	.43*
NBR	f		383		185	
SBL	2	3400	325	.10	469	.14*
SBT	4	6800	2525	.37*	1705	.25
SBR	1	1700	78	.05	107	.06
EBL	1	1700	19	.01*	62	.04
EBT	2	3400	192	.06	316	.09*
EBR	f		75		596	
WBL	3	5100	240	.05	700	.14*
WBT	2	3400	351	.10*	332	.10
WBR	d	1700	149	.09	209	.12
Clearance Interval			.05*		.05*	

TOTAL CAPACITY UTILIZATION .74 .85

APPENDIX C

LFTAM EXISTING AND FUTURE (2015 AND 2030) TRAFFIC FORECASTS

**City of Lake Forest
SBRA Project
(Zones 31-34 & 36)**

**Lake Forest Traffic Analysis Model (LFTAM)
Traffic Forecasts
Existing, 2015 and 2030
No-Project and With-Project**

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CONTENTS

LAND USES

SBRA Project Land Use and Trip Generation Summary

PROJECT TRIP DISTRIBUTION (SELECT ZONE PLOTS)

2030 With SBRA Project -- Zones 31-34, and 36 Combined
2015 With SBRA Project -- Zones 31-34, and 36 Combined
2015 With SBRA Project – Zone 31
2015 With SBRA Project – Zone 32
2015 With SBRA Project – Zone 33
2015 With SBRA Project – Zone 34
2015 With SBRA Project – Zone 36
Existing With SBRA Project – Zones 31-34, and 36 Combined

ADT FIGURES

Figure 1: 2030 ADT Volumes (000s) – No-Project
Figure 2: 2030 ADT Volumes (000s) – With-Project
Figure 3: 2015 ADT Volumes (000s) – No-Project
Figure 4: 2015 ADT Volumes (000s) – With-Project
Figure 5: Existing (2010) ADT Volumes (000s)
Figure 6: Existing ADT Volumes (000s) – With Alton
Figure 7: 2015 ADT Volumes (000s) – With Alton & Project

PEAK HOUR ICU SUMMARY TABLES

Figure 8: Intersection Location Map
Table A: 2030 SBRA Project Intersection LOS Summary
Table B: 2030 SBRA Project With LFTM Intersection LOS Summary
Table C: 2015 SBRA Project Intersection LOS Summary
Table D: 2015 SBRA Project With LFTM Intersection LOS Summary
Table E: Existing SBRA Project Intersection LOS Summary
Table F: Existing SBRA Project With LFTM Intersection LOS Summary

ICU WORKSHEETS

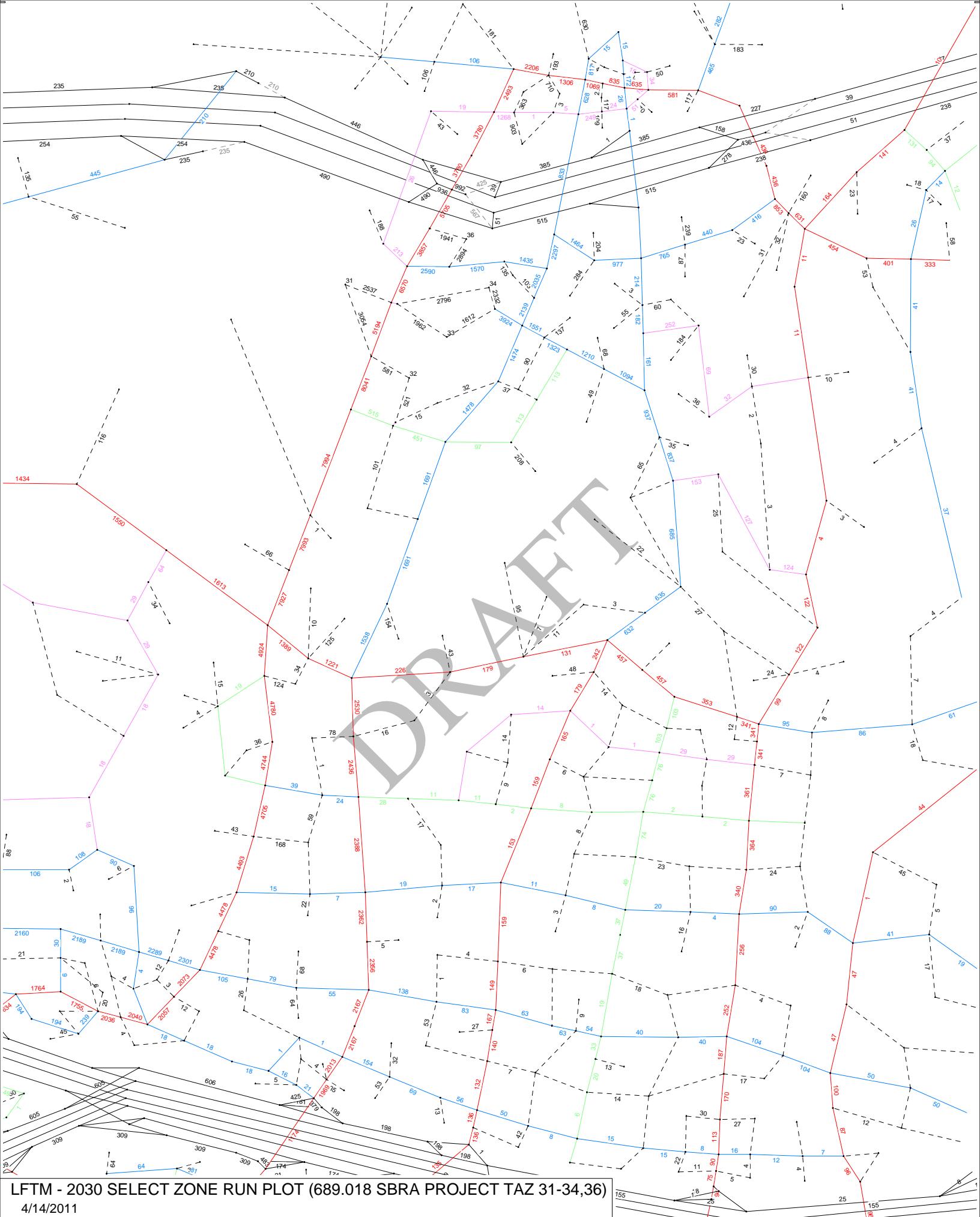
2030
2015
Existing

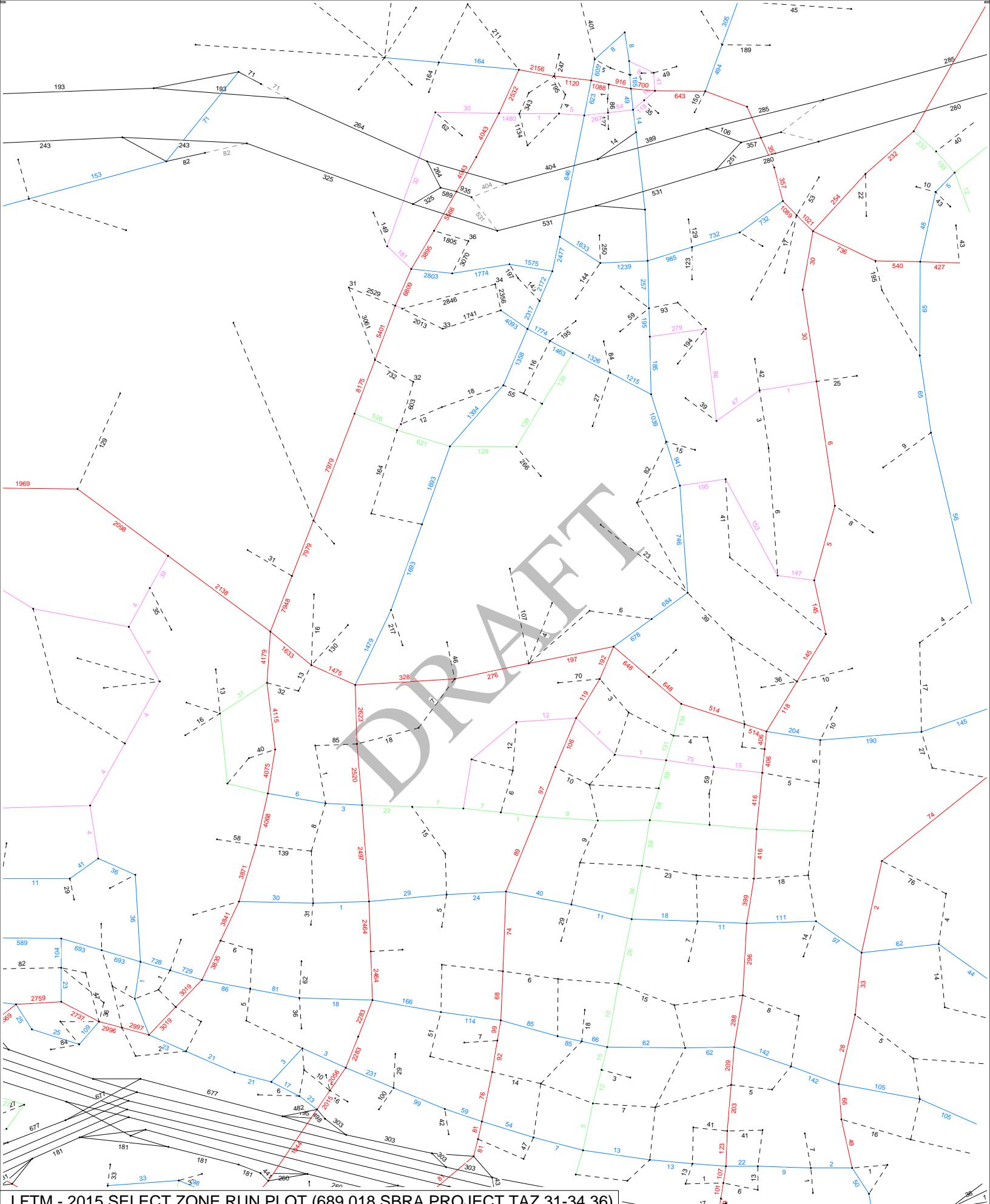
LAND USES

SBRA PROJECT LAND USE AND TRIP GENERATION SUMMARY

Zone	Land Use Description	Amount	Unit	AM Peak Hour			PM Peak Hour			ADT
				In	Out	Total	In	Out	Total	
31	1. Single Family Detached	337	DU	64	189	253	219	121	340	3,225
	2. Condominium	315	DU	54	158	212	142	104	246	2,567
	SUB-TOTAL			118	347	465	361	225	586	5,792
32	1. Single Family Detached	155	DU	29	87	116	101	56	157	1,483
	SUB-TOTAL			29	87	116	101	56	157	1,483
33	1. Single Family Detached	409	DU	78	229	307	266	147	413	3,914
	SUB-TOTAL			78	229	307	266	147	413	3,914
34	1. Single Family Detached	284	DU	54	159	213	185	102	287	2,718
	2. Condominium	324	DU	55	162	217	146	107	253	2,641
	36. Park	6.9	Acre	0	0	0	0	0	0	11
	SUB-TOTAL			109	321	430	331	209	540	5,370
36	3. Apartment	594	DU	59	244	303	238	131	369	3,992
	8. Commercial (EQ)	25	TSF	40	26	66	115	125	240	2,758
	SUB-TOTAL			99	270	369	353	256	609	6,750
TOTAL										
	1. Single Family Detached	1185	DU	225	664	889	771	426	1,197	11,340
	2. Condominium	639	DU	109	320	429	288	211	499	5,208
	3. Apartment	594	DU	59	244	303	238	131	369	3,992
	8. Commercial (EQ)	25	TSF	40	26	66	115	125	240	2,758
	36. Park	6.9	Acre	0	0	0	0	0	0	11
	TOTAL			433	1,254	1,687	1,412	893	2,305	23,309

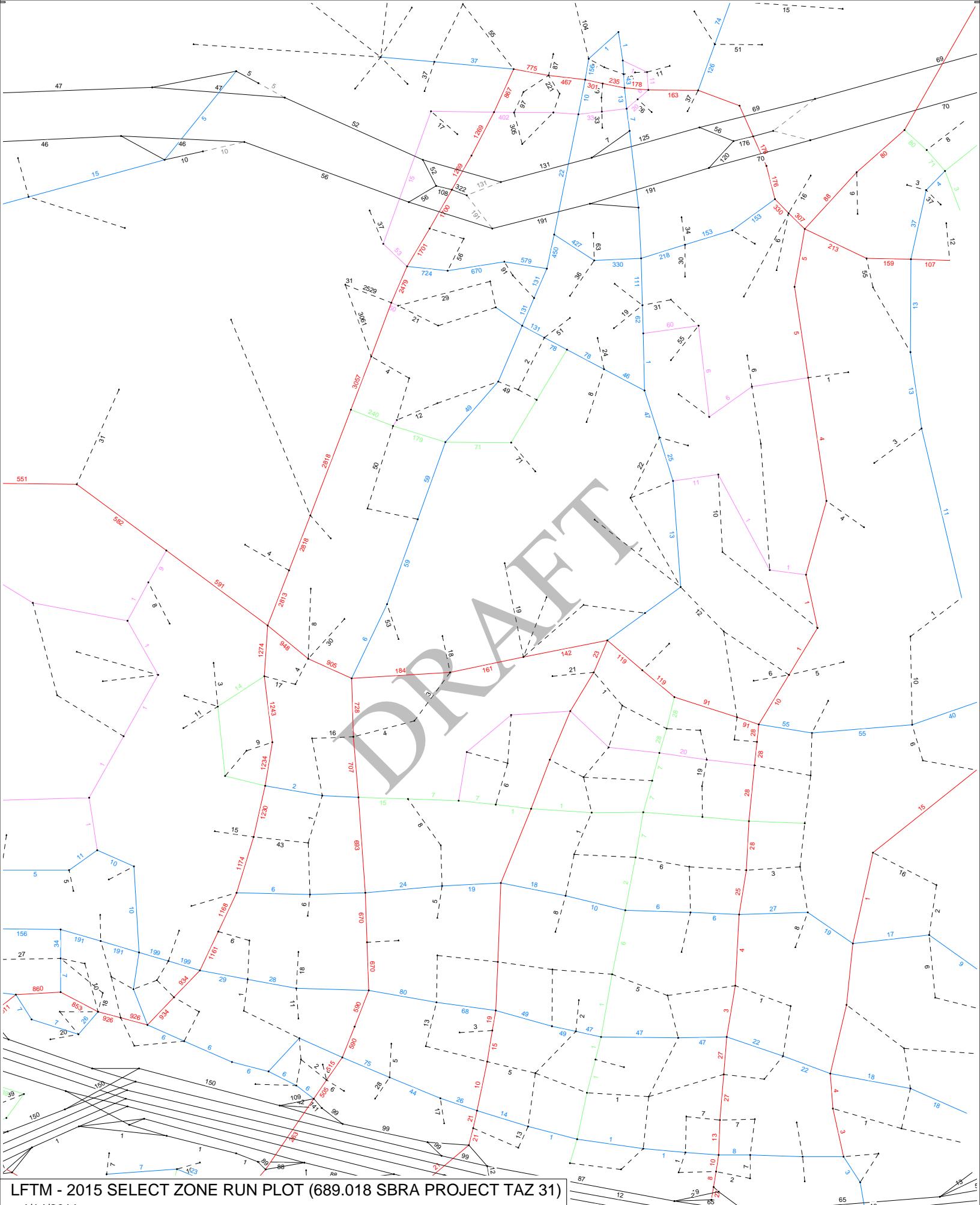
**PROJECT TRIP DISTRIBUTION
(SELECT ZONE PLOTS)**





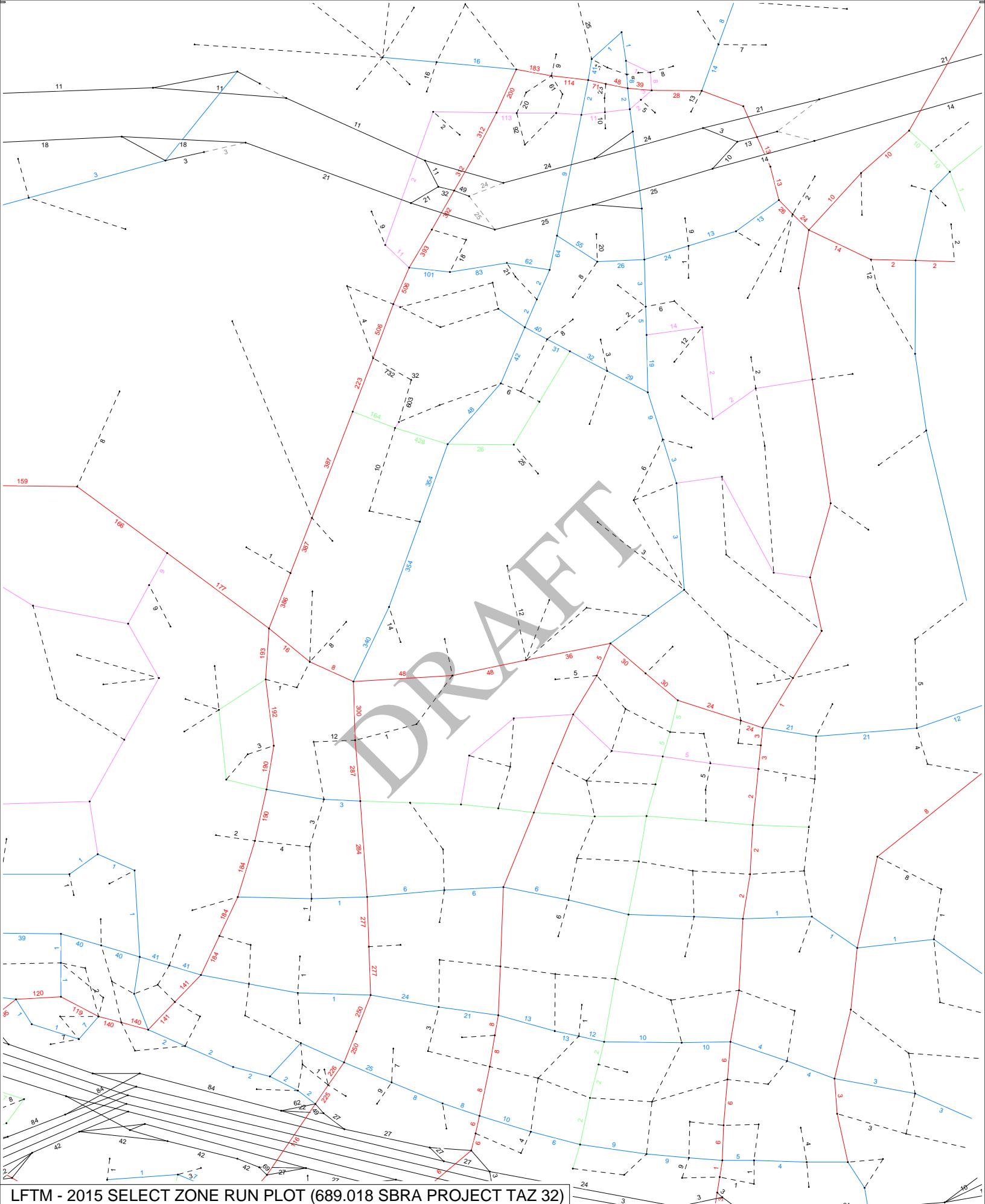
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4/14/2011
12:13 PM



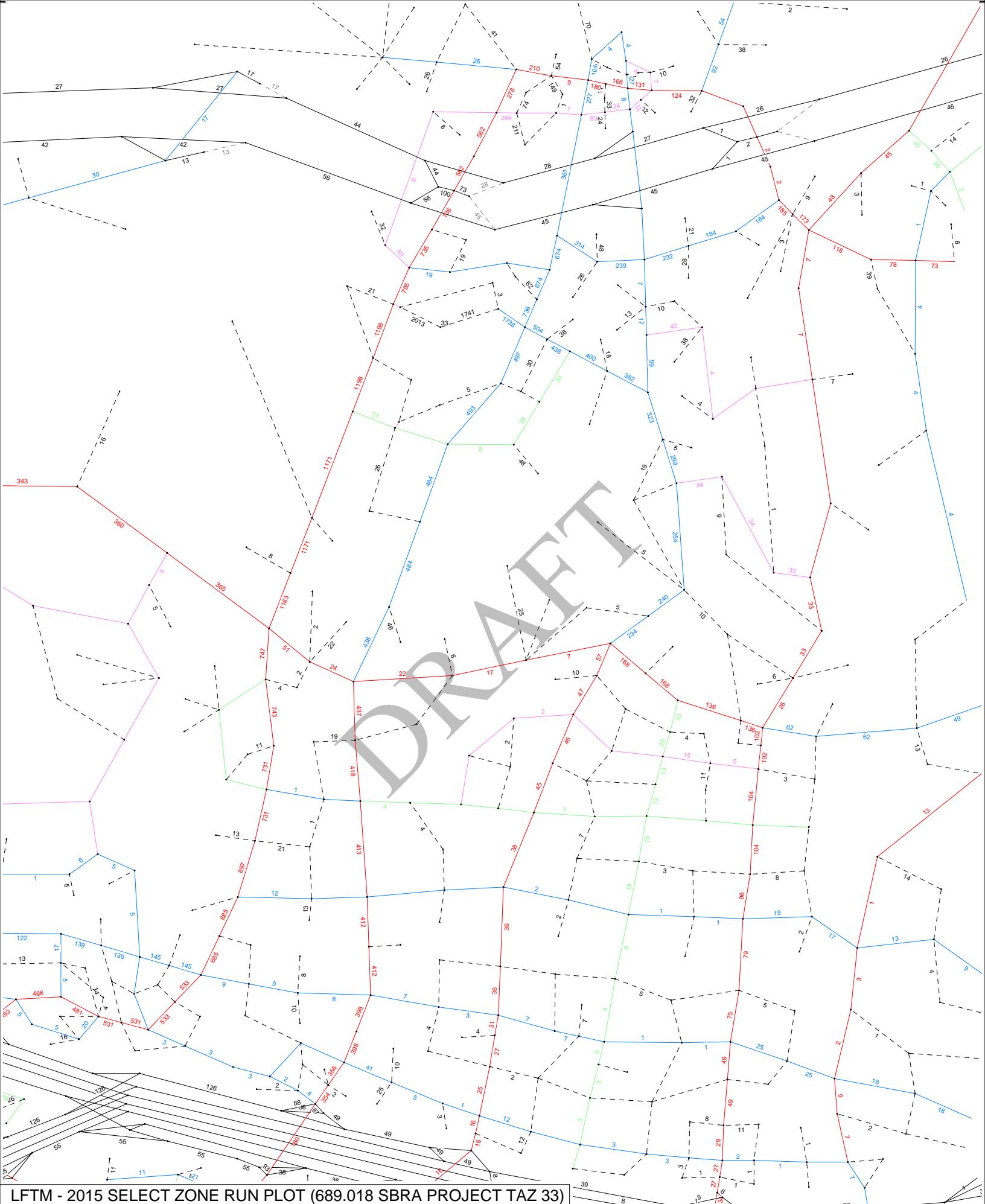
LFTM - 2015 SELECT ZONE RUN PLOT (689.018 SBRA PROJECT TAZ 31)

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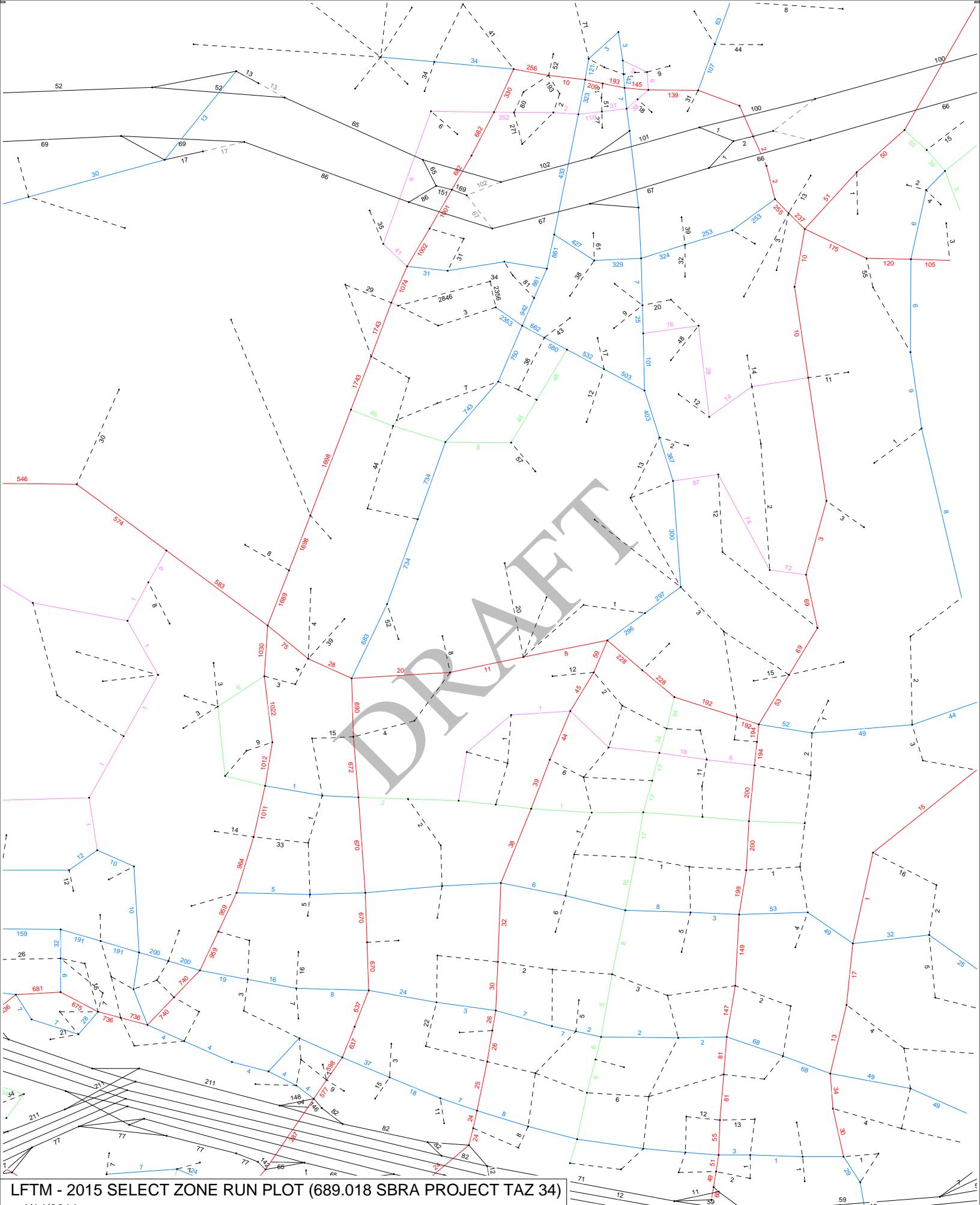
LFTM - 2015 SELECT ZONE RUN PLOT (689.018 SBRA PROJECT TAZ 32)

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12:04 PM



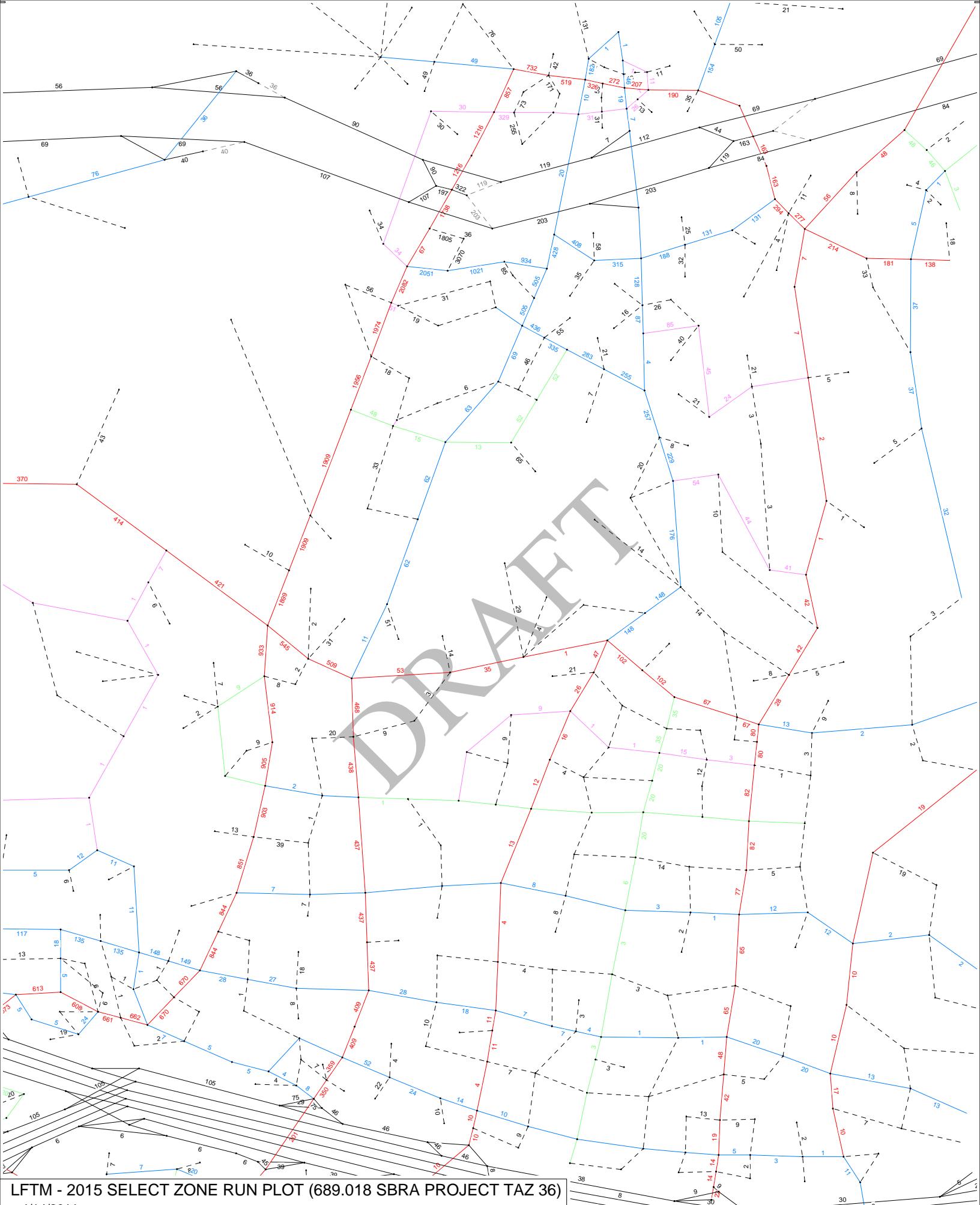
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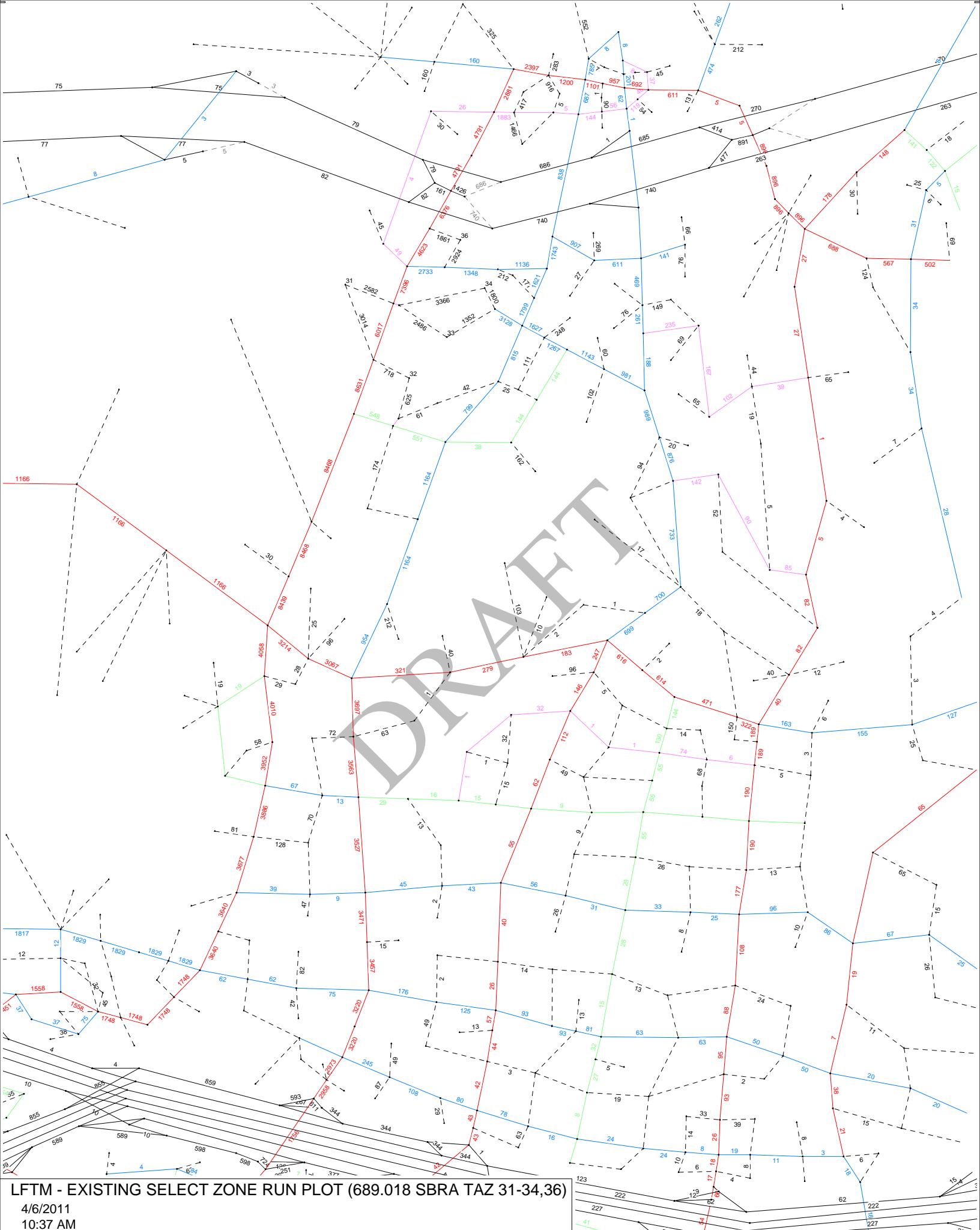
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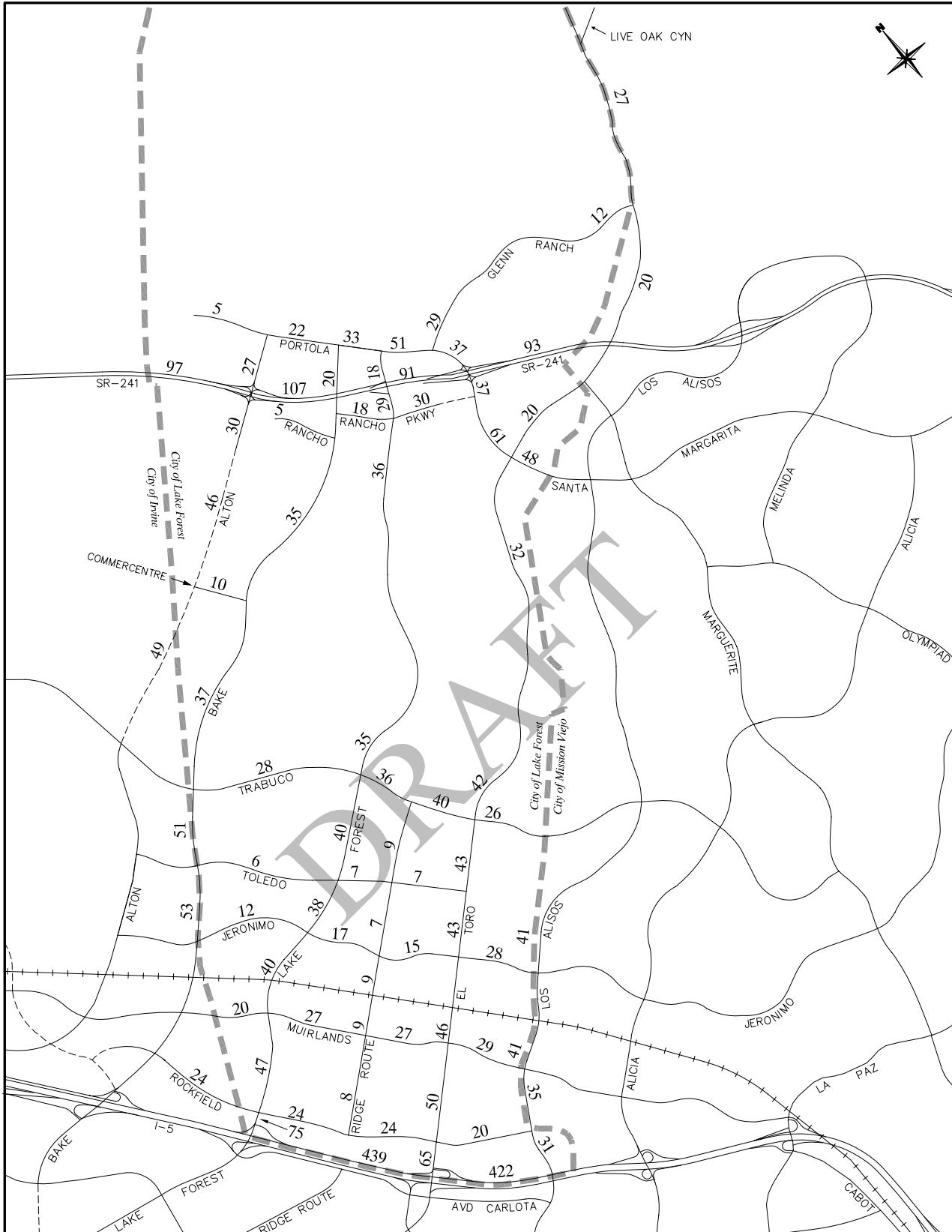


LFTM - 2015 SELECT ZONE RUN PLOT (689.018 SBRA PROJECT TAZ 36)

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12:10 PM



ADT FIGURES

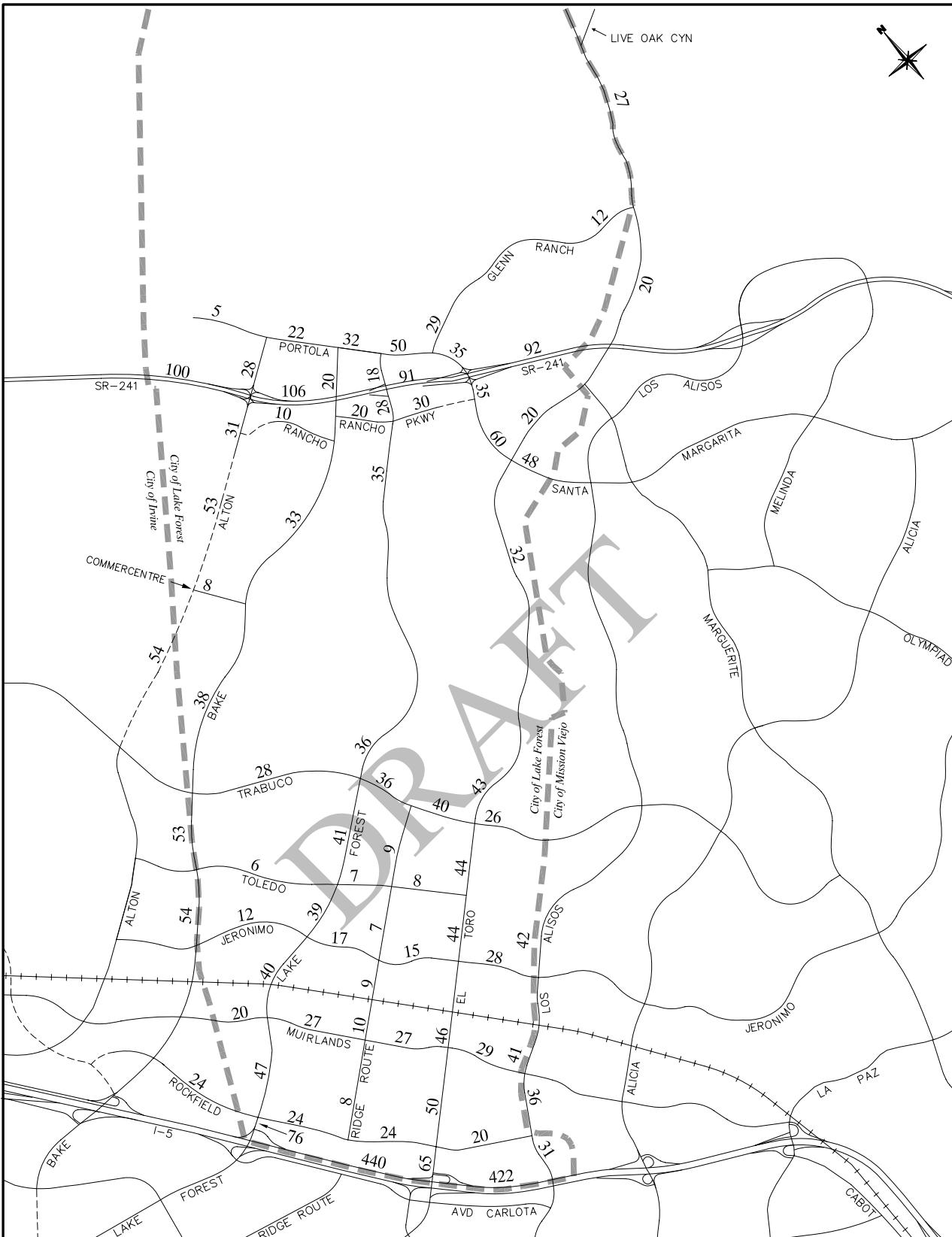


Legend

— Existing Roadway
- - - - Future Roadway

Figure 1

2030 ADT VOLUMES (000s)
- NO-PROJECT

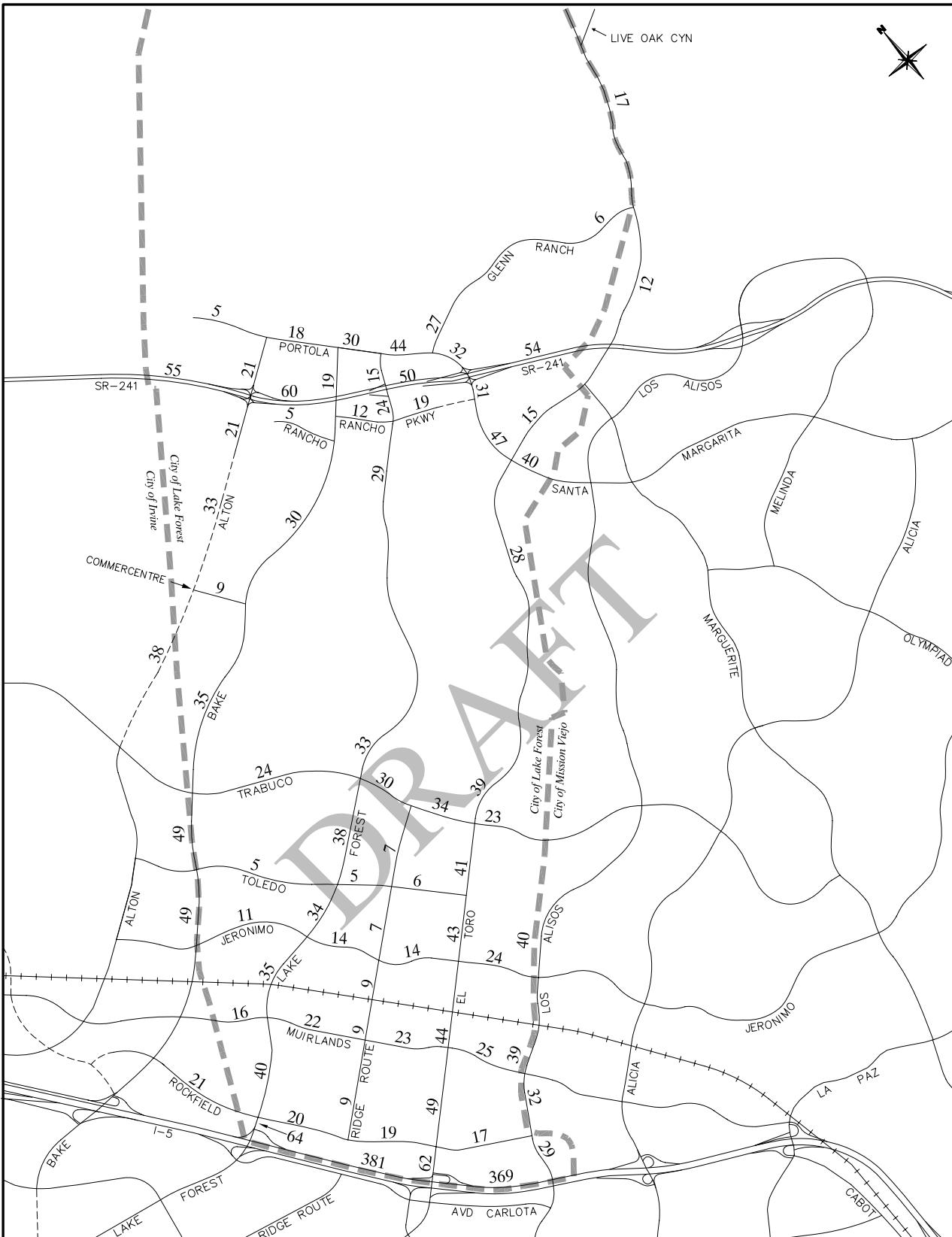


Legend

- Existing Roadway
- - - Future Roadway

Figure 2

2030 ADT VOLUMES (000s)
- WITH-PROJECT

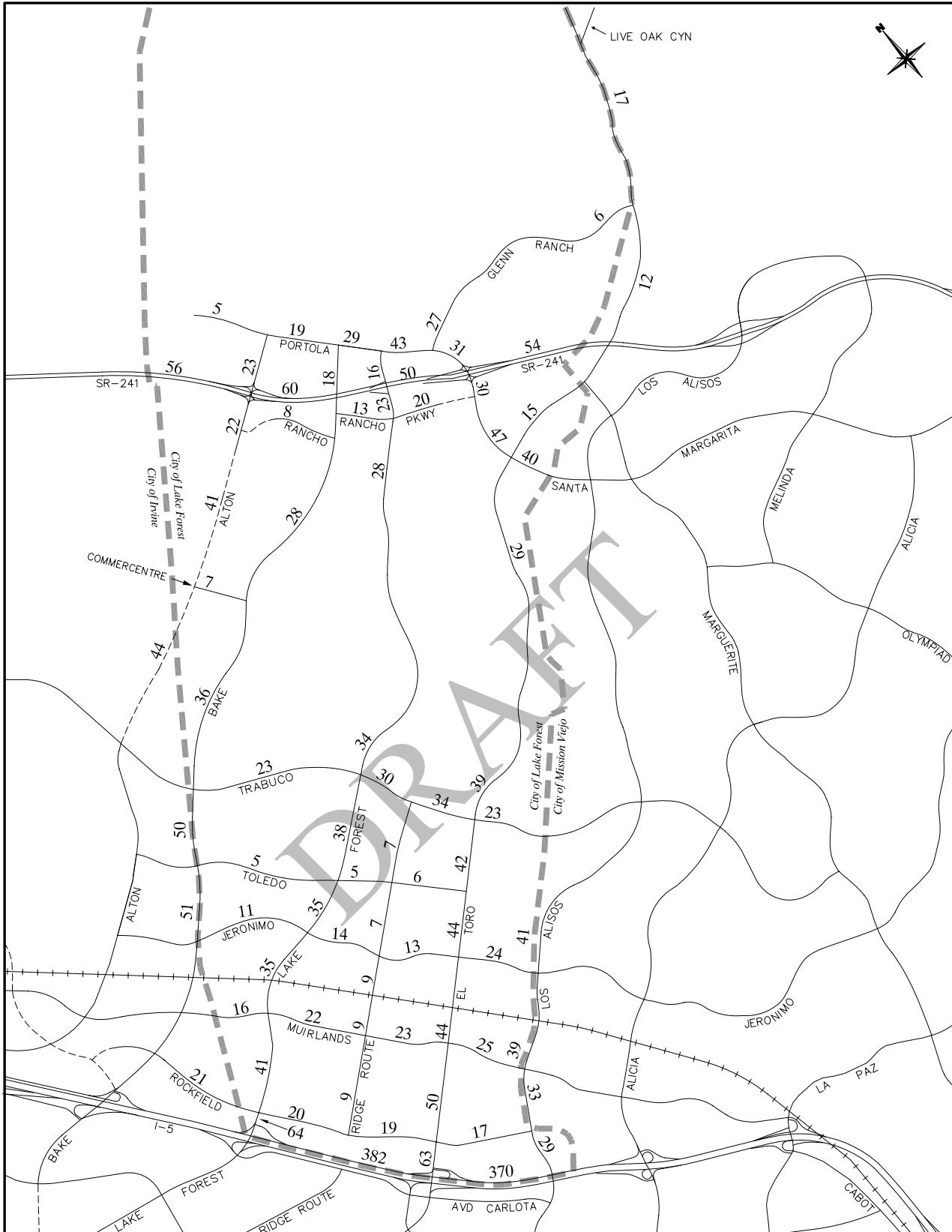


Legend

- Existing Roadway
- - - Future Roadway

Figure 3

2015 ADT VOLUMES (000s)
- NO-PROJECT

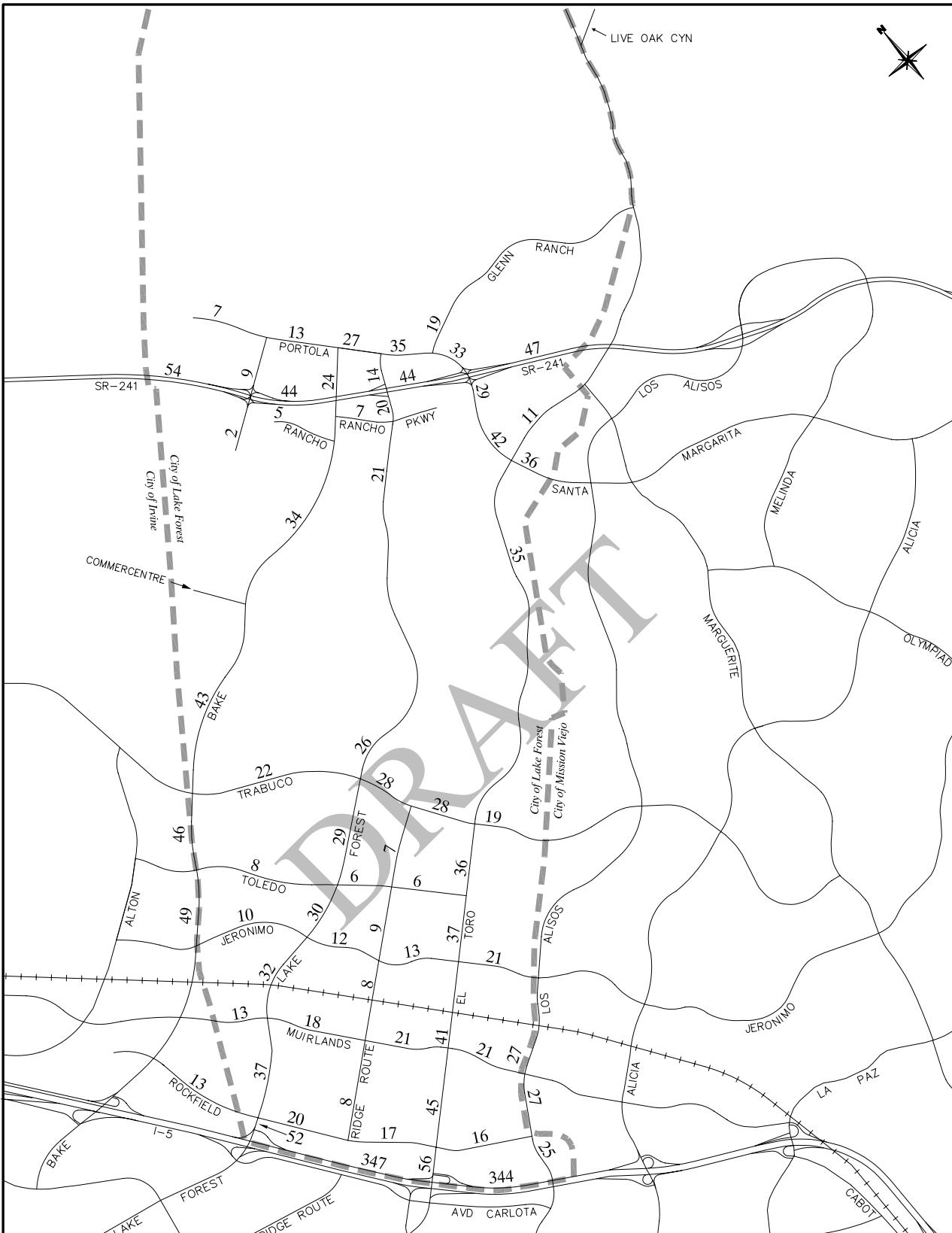


Legend

- Existing Roadway
- - - - Future Roadway

Figure 4

2015 ADT VOLUMES (000s) - WITH-PROJECT

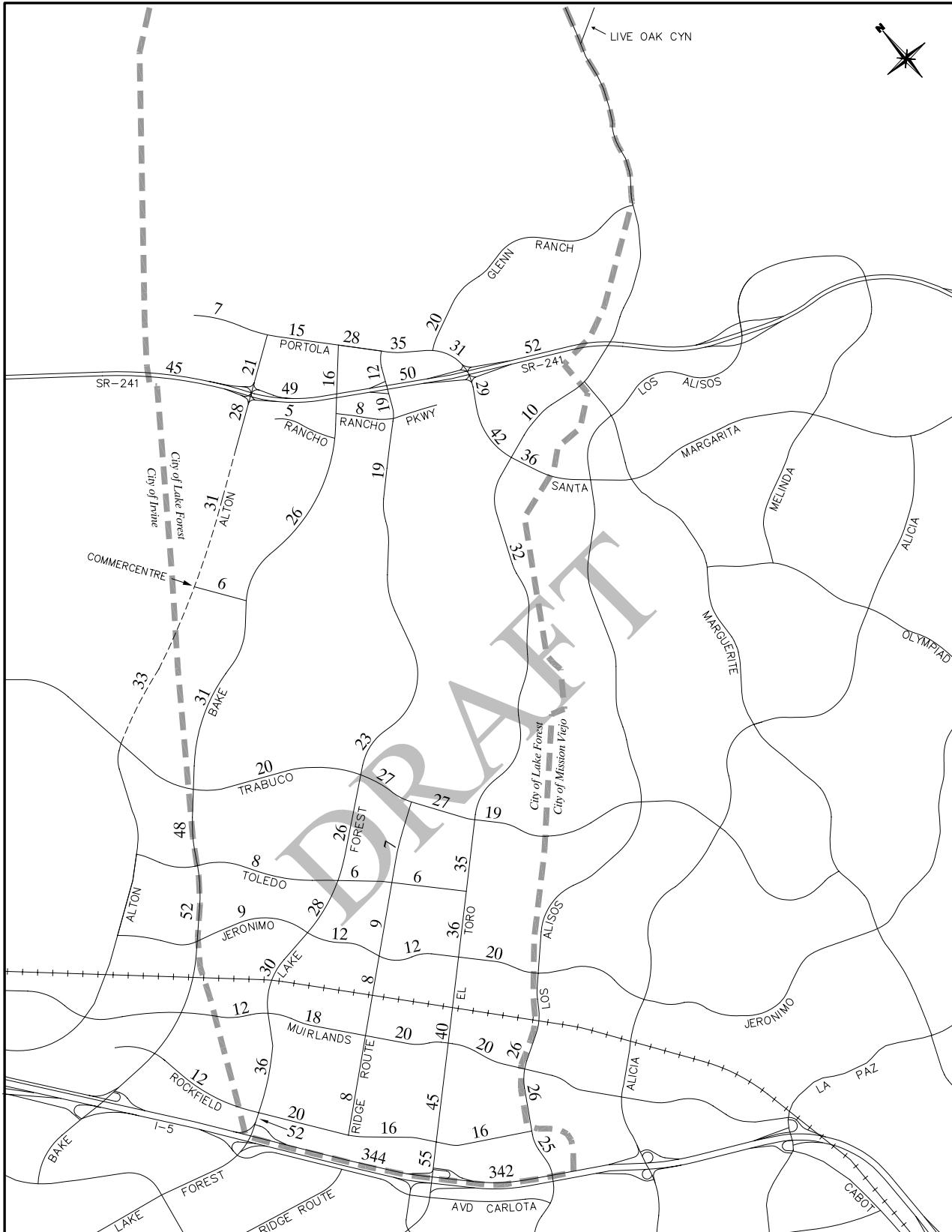


Legend

- Existing Roadway
- - - Future Roadway

Figure 5

EXISTING (2010) ADT VOLUMES (000s)

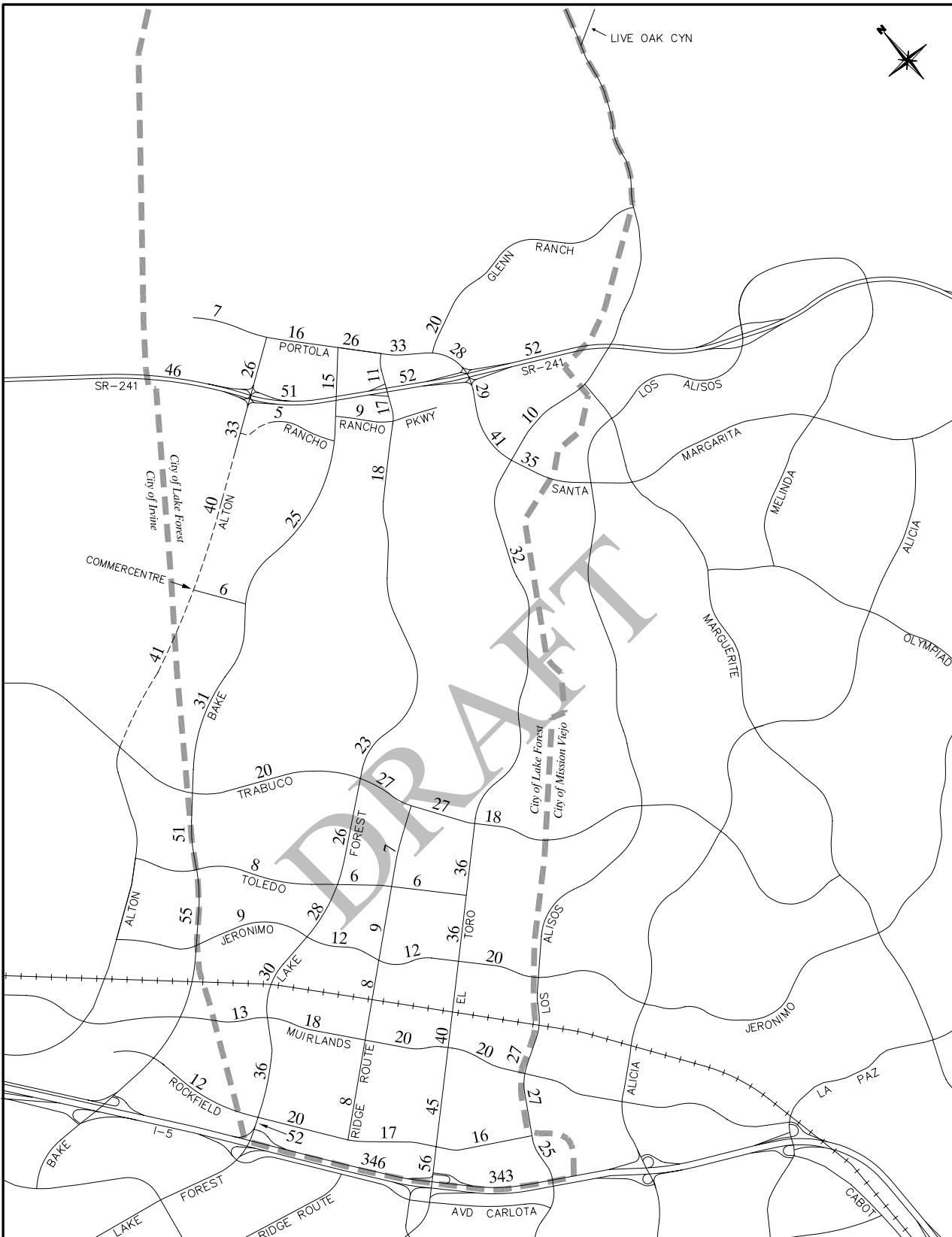


Legend

— Existing Roadway
- - - - Future Roadway

Figure 6

EXISTING ADT VOLUMES (000s) - WITH ALTON



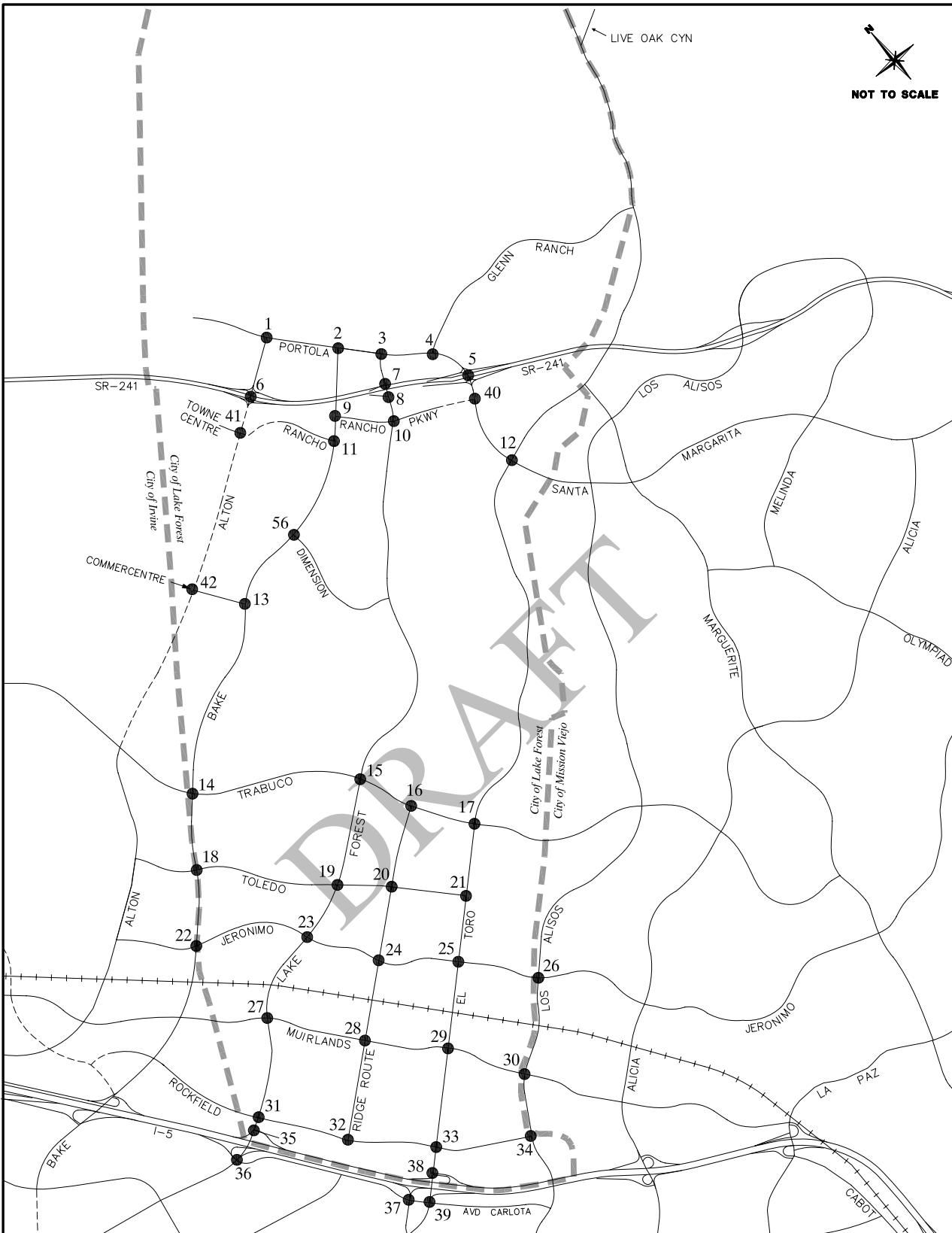
Legend

- Existing Roadway
- - - Future Roadway

Figure 7

EXISTING ADT VOLUMES (000s)
- WITH ALTON & PROJECT

PEAK HOUR ICU SUMMARY TABLES



Legend
 Intersection location
 Future Roadway

Figure 8

INTERSECTION LOCATION MAP

Table A

2030 SBRA PROJECT INTERSECTION LOS SUMMARY

Intersection	2030 No SBRA Project No Rancho				2030 With SBRA Project				Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
1. Alton & Portola	.47	A	.34	A	.49	A	.36	A	.02	.02
2. Bake & Portola	.61	B	.86	D	.63	B	.89	D	.02	.03
3. Lake Forest & Portola	.64	B	.89	D	.63	B	.89	D	-.01	.00
4. Glenn Ranch & Portola	.66	B	.70	B	.65	B	.67	B	-.01	-.03
5. Portola & SR-241 Ramps	.52	A	.67	B	.51	A	.67	B	-.01	.00
6. Alton & SR-241 Ramps	.82	D	.58	A	.80	C	.68	B	-.02	.10
7. Lake Forest & SR-241 NB	.33	A	.49	A	.33	A	.44	A	.00	-.05
8. Lake Forest & SR-241 SB	.67	B	.54	A	.57	A	.53	A	-.10	-.01
9. Bake & Rancho N	.67	B	.84	D	.66	B	.86	D	-.01	.02
10. Lake Forest & Rancho	.92	E	1.17	F	.93	E	1.16	F	.01	-.01
11. Bake & Rancho S	.61	B	.74	C	.70	B	.73	C	.09	-.01
12. El Toro & Portola/Santa Margarita	.86	D	1.03	F	.82	D	1.01	F	-.04	-.02
13. Bake & Commercentre	.64	B	.76	C	.66	B	.74	C	.02	-.02
14. Bake & Irvine/Trabuco	1.17	F	1.04	F	1.16	F	1.03	F	-.01	-.01
15. Lake Forest & Trabuco	.82	D	.89	D	.84	D	.89	D	.02	.00
16. Ridge Route & Trabuco	.58	A	.71	C	.57	A	.70	B	-.01	-.01
17. El Toro & Trabuco	.75	C	.78	C	.78	C	.78	C	.03	.00
18. Bake & Toledo	.87	D	.70	B	.89	D	.71	C	.02	.01
19. Lake Forest & Toledo	.63	B	.57	A	.62	B	.59	A	-.01	.02
20. Ridge Route & Toledo	.37	A	.38	A	.42	A	.40	A	.05	.02
21. El Toro & Toledo	.55	A	.62	B	.56	A	.63	B	.01	.01
22. Bake & Jeronimo	1.01	F	.86	D	1.03	F	.88	D	.02	.02
23. Lake Forest & Jeronimo	.78	C	.91	E	.77	C	.92	E	-.01	.01
24. Ridge Route & Jeronimo	.47	A	.66	B	.50	A	.66	B	.03	.00
25. El Toro & Jeronimo	.89	D	.85	D	.90	D	.84	D	.01	-.01
26. Los Alisos & Jeronimo	.88	D	.89	D	.89	D	.89	D	.01	.00
27. Lake Forest & Muirlands	.76	C	.87	D	.75	C	.84	D	-.01	-.03
28. Ridge Route & Muirlands	.57	A	.70	B	.57	A	.70	B	.00	.00
29. El Toro & Muirlands	.73	C	.86	D	.76	C	.87	D	.03	.01
30. Los Alisos & Muirlands	1.01	F	1.09	F	1.01	F	1.06	F	.00	-.03
31. Lake Forest & Rockfield	.81	D	.91	E	.83	D	.93	E	.02	.02
32. Ridge Route & Rockfield	.52	A	.64	B	.50	A	.64	B	-.02	.00
33. El Toro & Rockfield	.60	A	.75	C	.61	B	.74	C	.01	-.01
34. Los Alisos & Rockfield	.92	E	.91	E	.92	E	.92	E	.00	.01
35. Lake Forest & I-5 NB	.71	C	.74	C	.71	C	.74	C	.00	.00

Table A

2030 SBRA PROJECT INTERSECTION LOS SUMMARY

Intersection	2030 No SBRA Project No Rancho				2030 With SBRA Project				Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
36. Lake Forest & I-5/Carlota	.79	C	1.07	F	.80	C	1.08	F	.01	.01
37. Paseo De Valencia & Carlota	.65	B	.97	E	.64	B	.97	E	-.01	.00
38. El Toro & Bridger/I-5 NB	.70	B	.71	C	.71	C	.72	C	.01	.01
39. El Toro & Avd Carlota	.80	C	.78	C	.83	D	.80	C	.03	.02
40. Portola & Rancho	.63	B	.72	C	.63	B	.70	B	.00	-.02
41. Alton & Towne Centre Dr	.65	B	.65	B	.69	B	.75	C	.04	.10
42. Alton & Commercentre	.58	A	.76	C	.63	B	.76	C	.05	.00
56. Bake & Dimension Dr	.59	A	.74	C	.68	B	.81	D	.09	.07

Table B

2030 SBRA PROJECT WITH LFTM INTERSECTION LOS SUMMARY

Intersection	2030 With SBRA Project No LFTM				2030 With SBRA Project & LFTM				Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
10. Lake Forest & Rancho	.93	E	1.16	F	.67	B	.83	D	-.26	-.33
12. El Toro & Portola/Santa Margarita	.82	D	1.01	F	.66	B	.82	D	-.16	-.19
14. Bake & Irvine/Trabuco	1.16	F	1.03	F	.90	D	.85	D	-.26	-.18
22. Bake & Jeronimo	1.03	F	.88	D	.90	D	.88	D	-.13	.00
23. Lake Forest & Jeronimo	.77	C	.92	E	.75	C	.90	D	-.02	-.02
30. Los Alisos & Muirlands	1.01	F	1.06	F	.86	D	.88	D	-.15	-.18
31. Lake Forest & Rockfield	.83	D	.93	E	.83	D	.88	D	.00	-.05
34. Los Alisos & Rockfield	.92	E	.92	E	.73	C	.83	D	-.19	-.09
36. Lake Forest & I-5/Carlota	.80	C	1.08	F	.74	C	.95	E	-.06	-.13
37. Paseo De Valencia & Carlota	.64	B	.97	E	.60	A	.87	D	-.04	-.10

Table C

2015 SBRA PROJECT INTERSECTION LOS SUMMARY

Intersection	2015 No SBRA Project No Rancho				2015 With SBRA Project				Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
1. Alton & Portola	.43	A	.30	A	.44	A	.31	A	.01	.01
2. Bake & Portola	.53	A	.83	D	.51	A	.81	D	-.02	-.02
3. Lake Forest & Portola	.54	A	.75	C	.54	A	.76	C	.00	.01
4. Glenn Ranch & Portola	.60	A	.64	B	.61	B	.62	B	.01	-.02
5. Portola & SR-241 Ramps	.50	A	.60	A	.48	A	.60	A	-.02	.00
6. Alton & SR-241 Ramps	.53	A	.45	A	.56	A	.51	A	.03	.06
7. Lake Forest & SR-241 NB	.30	A	.37	A	.31	A	.35	A	.01	-.02
8. Lake Forest & SR-241 SB	.47	A	.45	A	.41	A	.44	A	-.06	-.01
9. Bake & Rancho N	.61	B	.72	C	.61	B	.71	C	.00	-.01
10. Lake Forest & Rancho	.60	A	.82	D	.59	A	.85	D	-.01	.03
11. Bake & Rancho S	.59	A	.66	B	.61	B	.67	B	.02	.01
12. El Toro & Portola/Santa Margarita	.64	B	.86	D	.64	B	.85	D	.00	-.01
13. Bake & Commercentre	.60	A	.74	C	.60	A	.71	C	.00	-.03
14. Bake & Irvine/Trabuco	1.04	F	.89	D	1.06	F	.93	E	.02	.04
15. Lake Forest & Trabuco	.82	D	.80	C	.83	D	.82	D	.01	.02
16. Ridge Route & Trabuco	.50	A	.61	B	.49	A	.60	A	-.01	-.01
17. El Toro & Trabuco	.68	B	.75	C	.68	B	.75	C	.00	.00
18. Bake & Toledo	.74	C	.62	B	.77	C	.64	B	.03	.02
19. Lake Forest & Toledo	.51	A	.47	A	.52	A	.48	A	.01	.01
20. Ridge Route & Toledo	.31	A	.32	A	.31	A	.33	A	.00	.01
21. El Toro & Toledo	.57	A	.57	A	.57	A	.59	A	.00	.02
22. Bake & Jeronimo	.88	D	.78	C	.91	E	.80	C	.03	.02
23. Lake Forest & Jeronimo	.69	B	.74	C	.70	B	.74	C	.01	.00
24. Ridge Route & Jeronimo	.44	A	.53	A	.44	A	.55	A	.00	.02
25. El Toro & Jeronimo	.74	C	.77	C	.74	C	.78	C	.00	.01
26. Los Alisos & Jeronimo	.68	B	.80	C	.70	B	.80	C	.02	.00
27. Lake Forest & Muirlands	.63	B	.83	D	.65	B	.84	D	.02	.01
28. Ridge Route & Muirlands	.47	A	.65	B	.45	A	.65	B	-.02	.00
29. El Toro & Muirlands	.64	B	.80	C	.65	B	.80	C	.01	.00
30. Los Alisos & Muirlands	.88	D	.93	E	.88	D	.93	E	.00	.00
31. Lake Forest & Rockfield	.68	B	.76	C	.69	B	.76	C	.01	.00
32. Ridge Route & Rockfield	.47	A	.56	A	.45	A	.55	A	-.02	-.01
33. El Toro & Rockfield	.51	A	.64	B	.52	A	.63	B	.01	-.01
34. Los Alisos & Rockfield	.82	D	.80	C	.81	D	.81	D	-.01	.01
35. Lake Forest & I-5 NB	.58	A	.64	B	.57	A	.64	B	-.01	.00

Table C

2015 SBRA PROJECT INTERSECTION LOS SUMMARY

Intersection	2015 No SBRA Project No Rancho				2015 With SBRA Project				Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
36. Lake Forest & I-5/Carlota	.63	B	.81	D	.64	B	.81	D	.01	.00
37. Paseo De Valencia & Carlota	.52	A	.85	D	.53	A	.87	D	.01	.02
38. El Toro & Bridger/I-5 NB	.64	B	.67	B	.65	B	.68	B	.01	.01
39. El Toro & Avd Carlota	.62	B	.98	E	.62	B	.99	E	.00	.01
40. Portola & Rancho	.44	A	.53	A	.44	A	.53	A	.00	.00
41. Alton & Towne Centre Dr	.43	A	.41	A	.60	A	.55	A	.17	.14
42. Alton & Commercentre	.44	A	.58	A	.53	A	.64	B	.09	.06
56. Bake & Dimension Dr	.54	A	.69	B	.61	B	.78	C	.07	.09

Table D

2015 SBRA PROJECT WITH LFTM INTERSECTION LOS SUMMARY

Intersection	2015 With SBRA Project No LFTM				2015 With SBRA Project & LFTM				Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
14. Bake & Irvine/Trabuco	1.06	F	.93	E	.89	D	.79	C	-.17	-.14
22. Bake & Jeronimo	.91	E	.80	C	.79	C	.80	C	-.12	.00

DRAFT

Table E

EXISTING SBRA PROJECT INTERSECTION LOS SUMMARY

Intersection	No SBRA Project								Existing With SBRA Project				Project vs Count Difference			
	Existing				Existing With Alton											
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour					
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM		
1. Alton & Portola	.37	A	.24	A	.37	A	.31	A	.40	A	.34	A	.03	.10		
2. Bake & Portola	.56	A	.59	A	.49	A	.65	B	.49	A	.63	B	-.07	.04		
3. Lake Forest & Portola	.43	A	.60	A	.45	A	.64	B	.43	A	.62	B	.00	.02		
4. Glenn Ranch & Portola	.54	A	.47	A	.53	A	.47	A	.51	A	.45	A	-.03	-.02		
5. Portola & SR-241 Ramps	.40	A	.51	A	.38	A	.48	A	.37	A	.46	A	-.03	-.05		
6. Alton & SR-241 Ramps	.17	A	.18	A	.44	A	.41	A	.52	A	.47	A	.35	.29		
7. Lake Forest & SR-241 NB	.29	A	.35	A	.24	A	.32	A	.23	A	.32	A	-.06	-.03		
8. Lake Forest & SR-241 SB	.40	A	.42	A	.36	A	.39	A	.30	A	.37	A	-.10	-.05		
9. Bake & Rancho N	.58	A	.54	A	.53	A	.51	A	.49	A	.50	A	-.09	-.04		
10. Lake Forest & Rancho	.37	A	.41	A	.53	A	.52	A	.53	A	.48	A	.16	.07		
11. Bake & Rancho S	.63	B	.47	A	.62	B	.47	A	.62	B	.45	A	-.01	-.02		
12. El Toro & Portola/Santa Margarita	.65	B	.59	A	.63	B	.59	A	.62	B	.57	A	-.03	-.02		
13. Bake & Commercentre	.56	A	.76	C	.49	A	.65	B	.50	A	.66	B	-.06	-.10		
14. Bake & Irvine/Trabuco	.78	C	.76	C	.71	C	.78	C	.77	C	.78	C	-.01	.02		
15. Lake Forest & Trabuco	.59	A	.56	A	.57	A	.61	B	.58	A	.60	A	-.01	.04		
16. Ridge Route & Trabuco	.49	A	.54	A	.49	A	.53	A	.46	A	.52	A	-.03	-.02		
17. El Toro & Trabuco	.68	B	.65	B	.64	B	.65	B	.66	B	.66	B	-.02	.01		
18. Bake & Toledo	.77	C	.63	B	.77	C	.66	B	.78	C	.63	B	.01	.00		
19. Lake Forest & Toledo	.48	A	.51	A	.49	A	.49	A	.48	A	.49	A	.00	-.02		
20. Ridge Route & Toledo	.33	A	.35	A	.34	A	.33	A	.32	A	.34	A	-.01	-.01		
21. El Toro & Toledo	.54	A	.51	A	.54	A	.50	A	.55	A	.50	A	.01	-.01		
22. Bake & Jeronimo	.85	D	.71	C	.84	D	.75	C	.91	E	.73	C	.06	.02		
23. Lake Forest & Jeronimo	.58	A	.61	B	.53	A	.59	A	.56	A	.59	A	-.02	-.02		
24. Ridge Route & Jeronimo	.29	A	.43	A	.30	A	.41	A	.30	A	.43	A	.01	.00		
25. El Toro & Jeronimo	.64	B	.84	D	.64	B	.83	D	.65	B	.82	D	.01	-.02		
26. Los Alisos & Jeronimo	.62	B	.60	A	.61	B	.58	A	.61	B	.60	A	-.01	.00		
27. Lake Forest & Muirlands	.48	A	.66	B	.50	A	.66	B	.50	A	.65	B	.02	-.01		
28. Ridge Route & Muirlands	.42	A	.58	A	.42	A	.57	A	.42	A	.58	A	.00	.00		
29. El Toro & Muirlands	.58	A	.71	C	.57	A	.70	B	.58	A	.71	C	.00	.00		
30. Los Alisos & Muirlands	.65	B	.71	C	.64	B	.69	B	.64	B	.69	B	-.01	-.02		
31. Lake Forest & Rockfield	.52	A	.65	B	.53	A	.64	B	.54	A	.64	B	.02	-.01		
32. Ridge Route & Rockfield	.35	A	.45	A	.40	A	.47	A	.41	A	.48	A	.06	.03		
33. El Toro & Rockfield	.55	A	.66	B	.56	A	.64	B	.57	A	.63	B	.02	-.03		
34. Los Alisos & Rockfield	.72	C	.64	B	.70	B	.62	B	.72	C	.62	B	.00	-.02		
35. Lake Forest & I-5 NB	.40	A	.57	A	.39	A	.58	A	.39	A	.57	A	-.01	.00		
36. Lake Forest & I-5/Carlota	.59	A	.77	C	.56	A	.78	C	.57	A	.78	C	-.02	.01		
37. Paseo De Valencia & Carlota	.50	A	.62	B	.50	A	.60	A	.50	A	.61	B	.00	-.01		
38. El Toro & Bridger/I-5 NB	.57	A	.63	B	.57	A	.63	B	.58	A	.63	B	.01	.00		
39. El Toro & Avd Carlota	.66	B	.89	D	.65	B	.90	D	.65	B	.91	E	-.01	.02		
41. Alton & Towne Centre Dr	--	--	--	--	.41	A	.38	A	.55	A	.52	A	.55	.52		
42. Alton & Commercentre	--	--	--	--	.40	A	.50	A	.50	A	.58	A	.50	.58		
56. Bake & Dimension Dr	.53	A	.69	B	.54	A	.62	B	.59	A	.75	C	.06	.06		

Table F

EXISTING SBRA PROJECT WITH LFTM INTERSECTION LOS SUMMARY

Intersection	Existing With SBRA Project No LFTM				Existing With SBRA Project & LFTM				Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
22. Bake & Jeronimo	.91	E	.73	C	.79	C	.73	C	-.12	.00
39. El Toro & Avd Carlota	.65	B	.91	E	.56	A	.70	B	-.09	-.21

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ICU WORKSHEETS

<u>Scenario</u>	<u>Page</u>
2030	ICU-2
2015	ICU-33
Existing	ICU-58

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2030

1. Alton & Portola

2030 No SBRA Project							2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	1	1700	30	.02	160	.09*		NBL	1	1700	40	.02	150	.09*
NBT	2	3400	80	.02*	190	.06		NBT	2	3400	80	.02*	190	.06
NBR	f		400		830			NBR	f		440		830	
SBL	1	1700	200	.12*	80	.05		SBL	1	1700	230	.14*	80	.05
SBT	2	3400	150	.04	110	.03*		SBT	2	3400	120	.04	110	.03*
SBR	d	1700	0	.00	10	.01		SBR	d	1700	0	.00	10	.01
EBL	2	3400	10	.00	10	.00		EBL	2	3400	10	.00	10	.00
EBT	2	3400	270	.08*	110	.03*		EBT	2	3400	280	.08*	110	.03*
EBR	f		100		70			EBR	f		90		70	
WBL	2	3400	670	.20*	480	.14*		WBL	2	3400	670	.20*	540	.16*
WBT	3	5100	140	.03	220	.04		WBT	3	5100	130	.03	220	.04
WBR	f		120		160			WBR	f		100		160	
Clearance Interval				.05*		.05*	Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.47		.34	TOTAL CAPACITY UTILIZATION				.49		.36	

2. Bake & Portola

2030 No SBRA Project							2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	1	1700	50	.03	250	.15		NBL	1	1700	60	.04	250	.15
NBT	1.5	5100	140	{.04}* [*]	300	{.15}* [*]		NBT	1.5	5100	160	.05*	310	{.14}* [*]
NBR	1.5		90		930			NBR	1.5		100		880	
SBL	1	1700	140	.08*	230	.14*		SBL	1	1700	140	.08*	280	.16*
SBT	2	3400	260	.08	270	.08		SBT	2	3400	260	.08	290	.09
SBR	d	1700	280	.16	380	.22		SBR	d	1700	280	.16	390	.23
EBL	1	1700	380	.22*	450	.26*		EBL	1	1700	400	.24*	470	.28*
EBT	3	5100	290	.06	840	.16		EBT	3	5100	300	.06	770	.15
EBR	d	1700	60	.04	60	.04		EBR	d	1700	80	.05	70	.04
WBL	2	3400	1020	.30	590	.17		WBL	2	3400	1020	.30	570	.17
WBT	2	3400	760	.22*	880	.26*		WBT	2	3400	700	.21*	870	.26*
WBR	d	1700	140	.08	100	.06		WBR	d	1700	120	.07	100	.06
Clearance Interval				.05*		.05*	Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.61		.86	TOTAL CAPACITY UTILIZATION				.63		.89	

3. Lake Forest & Portola

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	40	.02	60	.04	NBL	1	1700	40	.02	60	.04
NBT	2	3400	220	.06*	160	.05*	NBT	2	3400	200	.06*	170	.05*
NBR	d	1700	200	.12	480	.28	NBR	d	1700	200	.12	520	.31
SBL	1	1700	210	.12*	360	.21*	SBL	1	1700	210	.12*	300	.18*
SBT	2	3400	100	.03	200	.06	SBT	2	3400	110	.03	190	.06
SBR	d	1700	20	.01	10	.01	SBR	d	1700	20	.01	20	.01
EBL	2	3400	10	.00	20	.01	EBL	2	3400	20	.01*	20	.01
EBT	3	5100	510	.10	1650	.32*	EBT	3	5100	530	.10	1600	.31*
EBR	d	1700	40	.02	40	.02	EBR	d	1700	40	.02	30	.02
WBL	2	3400	570	.17	480	.14*	WBL	2	3400	620	.18	500	.15*
WBT	3	5100	2070	.41*	1180	.23	WBT	3	5100	1980	.39*	1160	.23
WBR	d	1700	310	.18	190	.11	WBR	d	1700	310	.18	170	.10
Right Turn Adjustment					NBR	.12*	Right Turn Adjustment					NBR	.15*
Clearance Interval				.05*		.05*	Clearance Interval						.05*
TOTAL CAPACITY UTILIZATION			.64			.89	TOTAL CAPACITY UTILIZATION			.63		.89	

4. Glenn Ranch & Portola

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	50	.03	70	.04	NBL	1	1700	60	.04	70	.04
NBT	2	3400	20	.01*	30	.02*	NBT	2	3400	20	.01*	20	.01*
NBR	0	0	30	.02	90	.05	NBR	0	0	30	.02	90	.05
SBL	2	3400	420	.12*	420	.12*	SBL	2	3400	410	.12*	380	.11*
SBT	2	3400	50	.01	20	.01	SBT	2	3400	50	.01	20	.01
SBR	f		940		710		SBR	f		910		750	
EBL	2	3400	430	.13*	1130	.33*	EBL	2	3400	450	.13*	1110	.33*
EBT	3	5100	520	.10	1950	.38	EBT	3	5100	520	.10	1880	.37
EBR	1	1700	20	.01	80	.05	EBR	1	1700	20	.01	70	.04
WBL	2	3400	120	.04	60	.02	WBL	2	3400	130	.04	50	.01
WBT	3	5100	1760	.35*	900	.18*	WBT	3	5100	1710	.34*	850	.17*
WBR	1	1700	130	.08	300	.18	WBR	1	1700	110	.06	300	.18
Clearance Interval				.05*		.05*	Clearance Interval				.05*		.05*
Note: Assumes Right-Turn Overlap for WBR							Note: Assumes Right-Turn Overlap for WBR						
TOTAL CAPACITY UTILIZATION			.66			.70	TOTAL CAPACITY UTILIZATION			.65		.67	

5. Portola & SR-241 Ramps

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	600	.18*	270	.08	NBL	2	3400	580	.17*	310	.09
NBT	3	5100	970	.19	890	.17*	NBT	3	5100	910	.18	840	.16*
NBR	f		80		240		NBR	f		80		220	
SBL	2	3400	260	.08	1230	.36*	SBL	2	3400	250	.07	1210	.36*
SBT	2	3400	510	.15*	1110	.33	SBT	2	3400	510	.15*	1060	.31
SBR	f		250		170		SBR	f		250		130	
EBL	1	1700	240	.14*	150	.09*	EBL	1	1700	240	.14*	170	.10*
EBT	0	0	0		0		EBT	0	0	0		0	
EBR	f		270		460		EBR	f		290		450	
WBL	2	3400	410	.12	170	.05	WBL	2	3400	380	.11	170	.05
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	f		1810		440		WBR	f		1810		410	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.52		.67		TOTAL CAPACITY UTILIZATION			.51		.67	

6. Alton & SR-241 Ramps

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	30	.02*	180	.11	NBL	1	1700	140	.08*	320	.19*
NBT	2	3400	560	.16	1200	.35*	NBT	2	3400	710	.21	1250	.37
NBR	f		250		1160		NBR	f		290		1060	
SBL	1	1700	140	.08	90	.05*	SBL	1	1700	140	.08	90	.05
SBT	2	3400	1330	.39*	890	.26	SBT	2	3400	1250	.37*	970	.29*
SBR	f		290		350		SBR	f		320		310	
EBL	2	3400	400	.12	310	.09	EBL	2	3400	320	.09	310	.09
EBT	0	0	0		0		EBT	0	0	0		0	
EBR	f		190		40		EBR	f		410		150	
WBL	2	3400	1240	.36*	450	.13*	WBL	2	3400	1020	.30*	510	.15*
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	f		100		120		WBR	f		80		120	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.82		.58		TOTAL CAPACITY UTILIZATION			.80		.68	

7. Lake Forest & SR-241 NB

2030 No SBRA Project								2030 With SBRA Project								
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C
NBL	2	3400	150	.04		600	.18*		NBL	2	3400	150	.04		490	.14*
NBT	2	3400	960	.28*		1070	.31		NBT	2	3400	960	.28*		1140	.34
NBR	0	0	0			0			NBR	0	0	0			0	
SBL	0	0	0			0			SBL	0	0	0			0	
SBT	2	3400	560	.16		890	.26*		SBT	2	3400	650	.19		860	.25*
SBR	1	1700	60	.04		340	.20		SBR	1	1700	70	.04		380	.22
EBL	0	0	0			0			EBL	0	0	0			0	
EBT	0	0	0			0			EBT	0	0	0			0	
EBR	0	0	0			0			EBR	0	0	0			0	
WBL	0	0	0			0			WBL	0	0	0			0	
WBT	0	0	0			0			WBT	0	0	0			0	
WBR	0	0	0			0			WBR	0	0	0			0	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*				
TOTAL CAPACITY UTILIZATION			.33		.49		TOTAL CAPACITY UTILIZATION			.33		.44				

8. Lake Forest & SR-241 SB

2030 No SBRA Project								2030 With SBRA Project								
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C
NBL	0	0	0			0			NBL	0	0	0			0	
NBT	2	3400	880	.26*		1520	.45*		NBT	2	3400	830	.24*		1460	.43*
NBR	0	0	0			0			NBR	0	0	0			0	
SBL	0	0	0			0			SBL	0	0	0			0	
SBT	2	3400	560	.16		890	.26		SBT	2	3400	650	.19		860	.25
SBR	0	0	0			0			SBR	0	0	0			0	
EBL	2	3400	240	.07*		140	.04*		EBL	2	3400	280	.08*		160	.05*
EBT	0	0	0			0			EBT	0	0	0			0	
EBR	1	1700	750	.44		290	.17		EBR	1	1700	540	.32		260	.15
WBL	0	0	0			0			WBL	0	0	0			0	
WBT	0	0	0			0			WBT	0	0	0			0	
WBR	0	0	0			0			WBR	0	0	0			0	
Right Turn Adjustment			EBR		.29*		Right Turn Adjustment			EBR		.20*				
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*				
TOTAL CAPACITY UTILIZATION			.67		.54		TOTAL CAPACITY UTILIZATION			.57		.53				

9. Bake & Rancho N

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0	0	0		0		NBL	0	0	0		0	
NBT	2	3400	650	.19	1710	.50*	NBT	2	3400	700	.21	1650	.49*
NBR	d	1700	450	.26	600	.35	NBR	d	1700	550	.32	660	.39
SBL	1	1700	110	.06	200	.12*	SBL	1	1700	110	.06	200	.12*
SBT	2	3400	1600	.47*	750	.22	SBT	2	3400	1560	.46*	820	.24
SBR	0	0	0		0		SBR	0	0	0		0	
EBL	0	0	0		0		EBL	0	0	0		0	
EBT	0	0	0		0		EBT	0	0	0		0	
EBR	0	0	0		0		EBR	0	0	0		0	
WBL	2	3400	500	.15*	570	.17*	WBL	2	3400	500	.15*	670	.20*
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	2	3400	50	.01	260	.08	WBR	2	3400	50	.01	250	.07
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.67		.84		TOTAL CAPACITY UTILIZATION			.66		.86	

10. Lake Forest & Rancho

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR		LANES	CAPACITY	AM VOL	PK V/C	HOUR		
NBL	1	1700	210	.12	300	.18*	NBL	1	1700	200	.12*	310	.18*
NBT	2	3400	790	.23*	1240	.36	NBT	2	3400	750	.22	1210	.36
NBR	d	1700	390	.23	650	.38	NBR	d	1700	400	.24	630	.37
SBL	1	1700	230	.14*	150	.09	SBL	1	1700	210	.12	150	.09
SBT	2	3400	860	.25	950	.28*	SBT	2	3400	810	.24*	920	.27*
SBR	d	1700	280	.16	130	.08	SBR	d	1700	230	.14	110	.06
EBL	1	1700	40	.02	160	.09	EBL	1	1700	40	.02	140	.08
EBT	1	1700	280	.16*	700	.41*	EBT	1	1700	300	.18*	700	.41*
EBR	1	1700	70	.04	180	.11	EBR	1	1700	90	.05	190	.11
WBL	1	1700	570	.34*	420	.25*	WBL	1	1700	570	.34*	420	.25*
WBT	2	3400	730	.21	520	.15	WBT	2	3400	760	.22	550	.16
WBR	1	1700	80	.05	260	.15	WBR	1	1700	70	.04	230	.14
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.92		1.17		TOTAL CAPACITY UTILIZATION			.93		1.16	

2030 With SBRA Project & LFTM						
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	
NBL	1	1700	200	.12*	310	.18*
NBT	2	3400	750	.22	1210	.36
NBR	d	1700	400	.24	630	.37
SBL	1	1700	210	.12	150	.09
SBT	2	3400	810	.24*	920	.27*
SBR	d	1700	230	.14	110	.06
EBL	1	1700	40	.02	140	.08
EBT	2	3400	300	.09*	700	.21*
EBR	1	1700	90	.05	190	.11
WBL	2	3400	570	.17*	420	.12*
WBT	2	3400	760	.22	550	.16
WBR	d	1700	70	.04	230	.14
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.67		.83	

11. Bake & Rancho S

2030 No SBRA Project								2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		
NBL	1	1700	0	.00	0	.00		NBL	1	1700	70	.04*	150	.09	
NBT	2	3400	1150	.34	2340	.69*		NBT	2	3400	1080	.32	2190	.64*	
NBR	0	0	0		0			NBR	0	0	0		0		
SBL	0	0	0		0			SBL	0	0	0		0		
SBT	2	3400	1920	.56*	1400	.41		SBT	2	3400	1840	.54*	1330	.39	
SBR	1	1700	110	.06	10	.01		SBR	1	1700	150	.09	260	.15	
EBL	2	3400	0	.00	10	.00		EBL	2	3400	220	.06*	150	.04*	
EBT	0	0	0		0			EBT	0	0	0		0		
EBR	1	1700	0	.00	0	.00		EBR	1	1700	170	.10	70	.04	
WBL	0	0	0		0			WBL	0	0	0		0		
WBT	0	0	0		0			WBT	0	0	0		0		
WBR	0	0	0		0			WBR	0	0	0		0		
Clearance Interval				.05*		.05*		Right Turn Adjustment				EBR	.01*		
TOTAL CAPACITY UTILIZATION			.61		.74			Clearance Interval				.05*		.05*	
								TOTAL CAPACITY UTILIZATION			.70		.73		

12. El Toro & Portola/Santa M

2030 No SBRA Project						2030 With SBRA Project								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	460	.27*	490	.29*		NBL	1	1700	450	.26*	470	.28*
NBT	3	5100	160	.03	650	.13		NBT	3	5100	160	.03	660	.13
NBR	f		290		490			NBR		300		500		
SBL	1	1700	60	.04	340	.20		SBL	1	1700	60	.04	340	.20
SBT	3	5100	800	.16*	590	.12*		SBT	3	5100	840	.16*	620	.12*
SBR	1	1700	410	.24	760	.45		SBR	1	1700	380	.22	740	.44
EBL	2	3400	70	.02*	600	.18		EBL	2	3400	70	.02*	560	.16
EBT	3	5100	580	.11	1710	.34*		EBT	3	5100	610	.12	1680	.33*
EBR	1	1700	420	.25	840	.49		EBR	1	1700	420	.25	830	.49
WBL	2	3400	550	.16	400	.12*		WBL	2	3400	570	.17	390	.11*
WBT	4	6800	2010	.30*	1140	.17		WBT	4	6800	1980	.29*	1130	.17
WBR	d	1700	20	.01	50	.03		WBR	d	1700	20	.01	50	.03
Right Turn Adjustment		SBR	.06*		SBR	.11*		Right Turn Adjustment		SBR	.04*		SBR	.12*
Clearance Interval			.05*			.05*		Clearance Interval			.05*			.05*
TOTAL CAPACITY UTILIZATION			.86		1.03		TOTAL CAPACITY UTILIZATION			.82		1.01		

2030 With SBRA Project & LFTM						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	2	3400	450	.13*	470	.14
NBT	3	5100	160	.03	660	.13*
NBR	f		300		500	
SBL	1	1700	60	.04	340	.20*
SBT	3	5100	840	.16*	620	.12
SBR	2	3400	380	.11	740	.22
EBL	2	3400	70	.02*	560	.16
EBT	3	5100	610	.12	1680	.33*
EBR	1	1700	420	.25	830	.49
WBL	2	3400	570	.17	390	.11*
WBT	4	6800	1980	.29*	1130	.17
WBR	d	1700	20	.01	50	.03
Right Turn Adjustment		EBR	.01*			
Clearance Interval			.05*			.05*
TOTAL CAPACITY UTILIZATION			.66		.82	

13. Bake & Commercentre

2030 No SBRA Project							2030 With SBRA Project						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	70	.04*	10	.01	NBL	1	1700	70	.04*	10	.01
NBT	2	3400	1150	.34	1420	.42*	NBT	2	3400	1060	.31	1460	.43*
NBR	d	1700	680	.40	210	.12	NBR	d	1700	710	.42	230	.14
SBL	1	1700	30	.02	90	.05*	SBL	1	1700	30	.02	60	.04*
SBT	2	3400	1360	.40*	990	.29	SBT	2	3400	1420	.42*	980	.29
SBR	d	1700	140	.08	100	.06	SBR	d	1700	80	.05	30	.02
EBL	1	1700	160	.09*	260	.15*	EBL	1	1700	60	.04	200	.12
EBT	2	3400	180	.06	70	.03	EBT	2	3400	170	.06*	90	.04*
EBR	0	0	10		30		EBR	0	0	40		50	
WBL	2	3400	290	.09	610	.18	WBL	2	3400	300	.09*	610	.18*
WBT	1	1700	80	.06*	100	.09*	WBT	1	1700	70	.05	110	.09
WBR	0	0	30		50		WBR	0	0	20		40	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.64		.76		TOTAL CAPACITY UTILIZATION			.66		.74	

14. Bake & Irvine/Trabuco

2030 No SBRA Project						2030 With SBRA Project								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	700	.41*	620	.36*		NBL	1	1700	680	.40*	590	.35*
NBT	3	5100	1320	.30	1260	.37		NBT	3	5100	1310	.30	1330	.39
NBR	0	0	210		690	.41		NBR	0	0	210		730	.43
SBL	2	3400	40	.01	180	.05		SBL	2	3400	30	.01	180	.05
SBT	3	5100	1270	.25*	1410	.28*		SBT	3	5100	1350	.26*	1460	.29*
SBR	1	1700	210	.12	370	.22		SBR	1	1700	220	.13	330	.19
EBL	2	3400	520	.15*	340	.10		EBL	2	3400	510	.15*	320	.09
EBT	3	5100	420	.08	1330	.26*		EBT	3	5100	390	.08	1280	.25*
EBR	1	1700	590	.35	600	.35		EBR	1	1700	610	.36	590	.35
WBL	2	3400	930	.27	300	.09*		WBL	2	3400	940	.28	290	.09*
WBT	3	5100	1560	.31*	620	.12		WBT	3	5100	1520	.30*	610	.12
WBR	1	1700	170	.10	30	.02		WBR	1	1700	180	.11	30	.02
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			1.17		1.04		TOTAL CAPACITY UTILIZATION			1.16		1.03		

2030 With SBRA Project & LFTM						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	2	3400	680	.20*	590	.17*
NBT	3	5100	1310	.30	1330	.39
NBR	0	0	210		730	.43
SBL	2	3400	30	.01	180	.05
SBT	3	5100	1350	.26*	1460	.29*
SBR	1	1700	220	.13	330	.19
EBL	2	3400	510	.15	320	.09
EBT	2.5	6800	390	.11*	1280	{.25}* {.22}
EBR	1.5		610		590	{.22}
WBL	2	3400	940	.28*	290	.09*
WBT	4	6800	1520	.22	610	.09
WBR	d	1700	180	.11	30	.02
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.90		.85	

15. Lake Forest & Trabuco

2030 No SBRA Project						2030 With SBRA Project								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	280	.08*	270	.08*		NBL	2	3400	270	.08*	260	.08*
NBT	3	5100	930	.18	1110	.22		NBT	3	5100	920	.18	1160	.23
NBR	1	1700	110	.06	770	.45		NBR	1	1700	110	.06	780	.46
SBL	2	3400	260	.08	320	.09		SBL	2	3400	280	.08	320	.09
SBT	3	5100	1170	.28*	1100	.25*		SBT	3	5100	1250	.30*	1110	.25*
SBR	0	0	280		200			SBR	0	0	260		180	
EBL	2	3400	220	.06	340	.10		EBL	2	3400	190	.06	330	.10
EBT	3	5100	690	.14*	1410	.28*		EBT	3	5100	680	.13*	1390	.27*
EBR	1	1700	420	.25	200	.12		EBR	1	1700	430	.25	210	.12
WBL	2	3400	750	.22*	320	.09*		WBL	2	3400	740	.22*	310	.09*
WBT	3	5100	1310	.26	700	.14		WBT	3	5100	1310	.26	720	.14
WBR	1	1700	300	.18	410	.24		WBR	1	1700	320	.19	420	.25
Right Turn Adjustment		EBR	.05*		NBR	.14*		Right Turn Adjustment		EBR	.06*		NBR	.15*
Clearance Interval			.05*			.05*		Clearance Interval			.05*			.05*
TOTAL CAPACITY UTILIZATION			.82		.89		TOTAL CAPACITY UTILIZATION			.84		.89		

16. Ridge Route & Trabuco

2030 No SBRA Project						2030 With SBRA Project								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	300	.18*	220	.13*		NBL	1	1700	280	.16*	230	.14*
NBT	0	0	0		0			NBT	0	0	0		0	
NBR	1	1700	80	.05	440	.26		NBR	1	1700	80	.05	450	.26
SBL	0	0	0		0			SBL	0	0	0		0	
SBT	0	0	0		0			SBT	0	0	0		0	
SBR	0	0	0		0			SBR	0	0	0		0	
EBL	0	0	0		0			EBL	0	0	0		0	
EBT	3	5100	790	.15*	1970	.39*		EBT	3	5100	780	.15	1950	.38*
EBR	d	1700	150	.09	330	.19		EBR	d	1700	170	.10	330	.19
WBL	1	1700	340	.20*	100	.06*		WBL	1	1700	330	.19	100	.06*
WBT	3	5100	1790	.35	1090	.21		WBT	3	5100	1820	.36*	1120	.22
WBR	0	0	0		0			WBR	0	0	0		0	
Right Turn Adjustment					NBR	.08*		Right Turn Adjustment				NBR	.07*	
Clearance Interval			.05*			.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.58		.71		TOTAL CAPACITY UTILIZATION			.57		.70		

17. El Toro & Trabuco

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	320	.09*	430	.13	NBL	2	3400	340	.10*	440	.13
NBT	3	5100	1170	.23	1460	.29*	NBT	3	5100	1170	.23	1470	.29*
NBR	1	1700	120	.07	620	.36	NBR	1	1700	130	.08	630	.37
SBL	2	3400	280	.08	260	.08*	SBL	2	3400	270	.08	270	.08*
SBT	3	5100	1640	.32*	1010	.20	SBT	3	5100	1740	.34*	1020	.20
SBR	1	1700	490	.29	170	.10	SBR	1	1700	490	.29	180	.11
EBL	2	3400	180	.05*	790	.23	EBL	2	3400	180	.05*	820	.24*
EBT	3	5100	350	.10	1300	.29*	EBT	3	5100	340	.10	1280	.28
EBR	0	0	290	.17	170		EBR	0	0	280	.16	160	
WBL	2	3400	290	.09	210	.06*	WBL	2	3400	290	.09	220	.06
WBT	3	5100	1210	.24*	550	.11	WBT	3	5100	1210	.24*	560	.11*
WBR	1	1700	250	.15	160	.09	WBR	1	1700	240	.14	160	.09
Right Turn Adjustment				NBR	.01*		Right Turn Adjustment			NBR	.01*		
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
Note: Assumes Right-Turn Overlap for SBR NBR						Note: Assumes Right-Turn Overlap for SBR NBR							
TOTAL CAPACITY UTILIZATION			.75		.78		TOTAL CAPACITY UTILIZATION			.78		.78	

18. Bake & Toledo

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	240	.14*	30	.02	NBL	1	1700	230	.14*	30	.02
NBT	3	5100	1940	.38	2120	.42*	NBT	3	5100	1940	.38	2170	.43*
NBR	d	1700	20	.01	340	.20	NBR	d	1700	20	.01	340	.20
SBL	1	1700	70	.04	120	.07*	SBL	1	1700	70	.04	120	.07*
SBT	3	5100	2260	.44*	2160	.42	SBT	3	5100	2360	.46*	2180	.43
SBR	d	1700	220	.13	60	.04	SBR	d	1700	230	.14	60	.04
EBL	2	3400	120	.04*	230	.07	EBL	2	3400	110	.03*	230	.07
EBT	2	3400	20	.01	470	.14*	EBT	2	3400	20	.01	460	.14*
EBR	1	1700	30	.02	210	.12	EBR	1	1700	30	.02	220	.13
WBL	1	1700	280	.16	40	.02*	WBL	1	1700	270	.16	40	.02*
WBT	2	3400	620	.20*	60	.04	WBT	2	3400	640	.21*	60	.04
WBR	0	0	70		80	.05	WBR	0	0	70		90	.05
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.87		.70		TOTAL CAPACITY UTILIZATION			.89		.71	

19. Lake Forest & Toledo

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	60	.04*	60	.04	NBL	1	1700	60	.04*	60	.04
NBT	3	5100	930	.18	1640	.32*	NBT	3	5100	920	.18	1690	.33*
NBR	d	1700	40	.02	130	.08	NBR	d	1700	40	.02	100	.06
SBL	1	1700	60	.04	60	.04*	SBL	1	1700	50	.03	60	.04*
SBT	3	5100	1760	.35*	1250	.25	SBT	3	5100	1800	.35*	1250	.25
SBR	d	1700	60	.04	80	.05	SBR	d	1700	40	.02	90	.05
EBL	1	1700	20	.01	110	.06	EBL	1	1700	30	.02	100	.06
EBT	2	3400	90	.05*	320	.12*	EBT	2	3400	100	.05*	330	.13*
EBR	0	0	70		100		EBR	0	0	80		110	
WBL	1	1700	230	.14*	60	.04*	WBL	1	1700	220	.13*	60	.04*
WBT	2	3400	320	.10	80	.04	WBT	2	3400	350	.11	90	.04
WBR	0	0	30		50		WBR	0	0	30		50	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.63		.57		TOTAL CAPACITY UTILIZATION			.62		.59	

20. Ridge Route & Toledo

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	40	.02	40	.02	NBL	1	1700	50	.03*	40	.02
NBT	2	3400	260	.11*	350	.11*	NBT	2	3400	270	.11	350	.12*
NBR	0	0	100		40		NBR	0	0	100		50	
SBL	1	1700	60	.04*	70	.04*	SBL	1	1700	70	.04	90	.05*
SBT	2	3400	320	.13	230	.07	SBT	2	3400	300	.15*	210	.07
SBR	0	0	130		20		SBR	0	0	200		20	
EBL	1	1700	50	.03*	110	.06	EBL	1	1700	50	.03	140	.08
EBT	2	3400	150	.05	500	.16*	EBT	2	3400	150	.05*	450	.15*
EBR	0	0	30		50		EBR	0	0	30		50	
WBL	1	1700	200	.12	40	.02*	WBL	1	1700	240	.14*	50	.03*
WBT	2	3400	420	.14*	110	.06	WBT	2	3400	380	.13	120	.06
WBR	0	0	70		80		WBR	0	0	70		80	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.37		.38		TOTAL CAPACITY UTILIZATION			.42		.40	

21. El Toro & Toledo

2030 No SBRA Project							2030 With SBRA Project						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	130	.08*	120	.07	NBL	1	1700	130	.08*	110	.06
NBT	3	5100	1600	.31	2140	.42*	NBT	3	5100	1610	.32	2220	.44*
NBR	d	1700	10	.01	20	.01	NBR	d	1700	10	.01	20	.01
SBL	1	1700	10	.01	10	.01*	SBL	1	1700	10	.01	10	.01*
SBT	3	5100	1880	.37*	1380	.27	SBT	3	5100	1960	.38*	1360	.27
SBR	d	1700	380	.22	100	.06	SBR	d	1700	380	.22	120	.07
EBL	1.5		60		350		EBL	1.5		60		310	
EBT	0.5	3400	10	.02*	70	.12*	EBT	0.5	3400	10	.02*	70	.11*
EBR	1	1700	110	.06	160	.09	EBR	1	1700	120	.07	190	.11
WBL	0	0	20		10		WBL	0	0	20		10	
WBT	1	1700	20	.03*	10	.02*	WBT	1	1700	20	.03*	10	.02*
WBR	0	0	10		10		WBR	0	0	10		10	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
Note: Assumes E/W Split Phasing							Note: Assumes E/W Split Phasing						
TOTAL CAPACITY UTILIZATION			.55		.62		TOTAL CAPACITY UTILIZATION			.56		.63	

22. Bake & Jeronimo

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	440	.26*	30	.02	NBL	1	1700	440	.26*	30	.02
NBT	3	5100	1770	.35	2300	.45*	NBT	3	5100	1770	.35	2370	.46*
NBR	d	1700	30	.02	410	.24	NBR	d	1700	40	.02	410	.24
SBL	1	1700	70	.04	130	.08*	SBL	1	1700	70	.04	120	.07*
SBT	3	5100	2360	.46*	2160	.42	SBT	3	5100	2450	.48*	2200	.43
SBR	d	1700	50	.03	10	.01	SBR	d	1700	60	.04	10	.01
EBL	2	3400	10	.00	90	.03	EBL	2	3400	10	.00	90	.03
EBT	2	3400	70	.02*	720	.21*	EBT	2	3400	70	.02*	740	.22*
EBR	1	1700	50	.03	290	.17	EBR	1	1700	50	.03	280	.16
WBL	1	1700	370	.22*	120	.07*	WBL	1	1700	370	.22*	130	.08*
WBT	2	3400	670	.23	130	.06	WBT	2	3400	670	.23	130	.06
WBR	0	0	120		70		WBR	0	0	110		70	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			1.01		.86		TOTAL CAPACITY UTILIZATION			1.03		.88	

2030 With SBRA Project & LFTM						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	2	3400	440	.13*	30	.01
NBT	3	5100	1770	.35	2370	.46*
NBR	d	1700	40	.02	410	.24
SBL	1	1700	70	.04	120	.07*
SBT	3	5100	2450	.48*	2200	.43
SBR	d	1700	60	.04	10	.01
EBL	2	3400	10	.00	90	.03
EBT	2	3400	70	.02*	740	.22*
EBR	1	1700	50	.03	280	.16
WBL	1	1700	370	.22*	130	.08*
WBT	2	3400	670	.23	130	.06
WBR	0	0	110		70	
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.90		.88	

23. Lake Forest & Jeronimo

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR		LANES	CAPACITY	AM VOL	PK V/C	HOUR		
NBL	1	1700	110	.06*	.04	NBL	1	1700	100	.06*	.04		
NBT	3	5100	910	.18	.37*	NBT	3	5100	890	.17	.38*		
NBR	1	1700	110	.06	.15	NBR	1	1700	120	.07	.15		
SBL	1	1700	210	.12	.130	.08*	SBL	1	1700	210	.12	.130	.08*
SBT	3	5100	1470	.29*	1210	.24	SBT	3	5100	1540	.30*	1230	.24
SBR	1	1700	360	.21	190	.11	SBR	1	1700	320	.19	190	.11
EBL	1	1700	80	.05	180	.11	EBL	1	1700	80	.05	160	.09
EBT	2	3400	310	.12*	820	.26*	EBT	2	3400	300	.13*	840	.27*
EBR	0	0	110		80		EBR	0	0	130		80	
WBL	1	1700	440	.26*	250	.15*	WBL	1	1700	390	.23*	240	.14*
WBT	2	3400	680	.28	270	.10	WBT	2	3400	730	.29	280	.11
WBR	0	0	260		80		WBR	0	0	270		90	
Clearance Interval			.05*		.05*	Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.78		.91	TOTAL CAPACITY UTILIZATION			.77		.92		

2030 With SBRA Project & LFTM						
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	
NBL	1	1700	100	.06*	.04	
NBT	3	5100	890	.17	.38*	
NBR	1	1700	120	.07	.15	
SBL	1	1700	210	.12	.130	.08*
SBT	3	5100	1540	.30*	1230	.24
SBR	1	1700	320	.19	190	.11
EBL	1	1700	80	.05*	160	.09
EBT	2	3400	300	.09	840	.25*
EBR	d	1700	130	.08	80	.05
WBL	1	1700	390	.23	240	.14*
WBT	2	3400	730	.29*	280	.11
WBR	0	0	270		90	
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.75		.90	

24. Ridge Route & Jeronimo

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	220	.13*	50	.03	NBL	1	1700	240	.14*	60	.04
NBT	2	3400	270	.08	310	.09*	NBT	2	3400	270	.08	330	.10*
NBR	d	1700	60	.04	130	.08	NBR	d	1700	60	.04	130	.08
SBL	1	1700	20	.01	150	.09*	SBL	1	1700	20	.01	130	.08*
SBT	2	3400	200	.06*	170	.05	SBT	2	3400	230	.07*	190	.06
SBR	d	1700	80	.05	50	.03	SBR	d	1700	80	.05	50	.03
EBL	1	1700	140	.08	90	.05	EBL	1	1700	140	.08	80	.05
EBT	2	3400	640	.21*	1210	.38*	EBT	2	3400	650	.22*	1230	.38*
EBR	0	0	90		70		EBR	0	0	90		70	
WBL	1	1700	40	.02*	90	.05*	WBL	1	1700	40	.02*	90	.05*
WBT	2	3400	410	.14	430	.15	WBT	2	3400	380	.14	430	.15
WBR	0	0	80		80		WBR	0	0	100		70	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.47		.66		TOTAL CAPACITY UTILIZATION			.50		.66	

25. El Toro & Jeronimo

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	120	.07	70	.04	NBL	1	1700	90	.05	80	.05
NBT	3	5100	1490	.29*	1760	.35*	NBT	3	5100	1490	.29*	1810	.35*
NBR	1	1700	220	.13	170	.10	NBR	1	1700	200	.12	190	.11
SBL	1	1700	440	.26*	210	.12*	SBL	1	1700	440	.26*	180	.11*
SBT	3	5100	1490	.29	1010	.20	SBT	3	5100	1590	.31	1040	.20
SBR	d	1700	110	.06	340	.20	SBR	d	1700	90	.05	340	.20
EBL	1	1700	120	.07*	180	.11	EBL	1	1700	120	.07*	200	.12
EBT	2	3400	300	.12	700	.26*	EBT	2	3400	290	.11	700	.26*
EBR	0	0	100		170		EBR	0	0	100		170	
WBL	2	3400	570	.17	250	.07*	WBL	2	3400	540	.16	250	.07*
WBT	2	3400	760	.22*	540	.16	WBT	2	3400	790	.23*	540	.16
WBR	1	1700	100	.06	320	.19	WBR	1	1700	110	.06	340	.20
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
Note: Assumes Right-Turn Overlap for NBR							Note: Assumes Right-Turn Overlap for NBR						
TOTAL CAPACITY UTILIZATION			.89		.85		TOTAL CAPACITY UTILIZATION			.90		.84	

26. Los Alisos & Jeronimo

2030 No SBRA Project						2030 With SBRA Project											
	LANES	CAPACITY	AM PK HOUR		V/C	PM PK HOUR		V/C		LANES	CAPACITY	AM PK HOUR		V/C	PM PK HOUR		V/C
			VOL	V/C		VOL	V/C					VOL	V/C		VOL	V/C	
NBL	1	1700	180	.11*		160	.09			NBL	1	1700	190	.11*	160	.09	
NBT	3	5100	730	.14		1560	.31*			NBT	3	5100	740	.15	1590	.31*	
NBR	1	1700	280	.16		390	.23			NBR	1	1700	290	.17	390	.23	
SBL	1	1700	290	.17		260	.15*			SBL	1	1700	290	.17	260	.15*	
SBT	3	5100	1460	.29*		1030	.20			SBT	3	5100	1520	.30*	1050	.21	
SBR	1	1700	430	.25		150	.09			SBR	1	1700	410	.24	150	.09	
EBL	2	3400	170	.05*		380	.11			EBL	2	3400	170	.05*	390	.11	
EBT	2	3400	550	.16		1050	.31*			EBT	2	3400	580	.17	1060	.31*	
EBR	1	1700	270	.16		330	.19			EBR	1	1700	250	.15	300	.18	
WBL	2	3400	270	.08		240	.07*			WBL	2	3400	260	.08	240	.07*	
WBT	2	3400	1300	.38*		430	.13			WBT	2	3400	1300	.38*	450	.13	
WBR	1	1700	170	.10		290	.17			WBR	1	1700	140	.08	280	.16	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*					
TOTAL CAPACITY UTILIZATION			.88		.89		TOTAL CAPACITY UTILIZATION			.89		.89					

27. Lake Forest & Muirlands

2030 No SBRA Project						2030 With SBRA Project											
	LANES	CAPACITY	AM PK HOUR		V/C	PM PK HOUR		V/C		LANES	CAPACITY	AM PK HOUR		V/C	PM PK HOUR		V/C
			VOL	V/C		VOL	V/C					VOL	V/C		VOL	V/C	
NBL	2	3400	30	.01*		60	.02			NBL	2	3400	30	.01*	70	.02	
NBT	3	5100	790	.15		1680	.33*			NBT	3	5100	780	.15	1650	.32*	
NBR	1	1700	150	.09		510	.30			NBR	1	1700	150	.09	560	.33	
SBL	2	3400	70	.02		160	.05*			SBL	2	3400	80	.02	160	.05*	
SBT	3	5100	2000	.39*		1270	.25			SBT	3	5100	1970	.39*	1290	.25	
SBR	1	1700	120	.07		120	.07			SBR	1	1700	170	.10	120	.07	
EBL	2	3400	80	.02*		500	.15			EBL	2	3400	70	.02*	560	.16	
EBT	2	3400	310	.09		1210	.36*			EBT	2	3400	310	.09	1160	.34*	
EBR	1	1700	50	.03		180	.11			EBR	1	1700	50	.03	170	.10	
WBL	2	3400	410	.12		280	.08*			WBL	2	3400	490	.14	280	.08*	
WBT	2	3400	990	.29*		370	.11			WBT	2	3400	940	.28*	350	.10	
WBR	1	1700	140	.08		100	.06			WBR	1	1700	130	.08	100	.06	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*					
Note: Assumes Right-Turn Overlap for EBR																	
TOTAL CAPACITY UTILIZATION			.76		.87		TOTAL CAPACITY UTILIZATION			.75		.84					

28. Ridge Route & Muirlands

2030 No SBRA Project						2030 With SBRA Project								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	80	.05*	110	.06*		NBL	1	1700	80	.05*	100	.06*
NBT	2	3400	270	.08	190	.06		NBT	2	3400	270	.08	190	.06
NBR	d	1700	130	.08	230	.14		NBR	d	1700	120	.07	230	.14
SBL	1	1700	10	.01	100	.06		SBL	1	1700	20	.01	100	.06
SBT	2	3400	200	.06*	200	.06*		SBT	2	3400	200	.06*	210	.06*
SBR	d	1700	150	.09	50	.03		SBR	d	1700	170	.10	50	.03
EBL	1	1700	90	.05*	190	.11		EBL	1	1700	90	.05*	210	.12
EBT	2	3400	480	.14	1490	.44*		EBT	2	3400	480	.14	1480	.44*
EBR	1	1700	50	.03	70	.04		EBR	1	1700	50	.03	60	.04
WBL	1	1700	70	.04	90	.05*		WBL	1	1700	70	.04	90	.05*
WBT	2	3400	1240	.36*	650	.19		WBT	2	3400	1240	.36*	650	.19
WBR	1	1700	100	.06	110	.06		WBR	1	1700	120	.07	110	.06
Right Turn Adjustment					NBR	.04*	Right Turn Adjustment					NBR	.04*	
Clearance Interval			.05*			.05*	Clearance Interval						.05*	
TOTAL CAPACITY UTILIZATION			.57			.70	TOTAL CAPACITY UTILIZATION			.57		.70		

29. El Toro & Muirlands

2030 No SBRA Project						2030 With SBRA Project								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	110	.03*	200	.06		NBL	2	3400	110	.03*	190	.06
NBT	3	5100	1570	.31	1660	.33*		NBT	3	5100	1570	.31	1720	.34*
NBR	1	1700	80	.05	430	.25		NBR	1	1700	80	.05	430	.25
SBL	2	3400	80	.02	190	.06*		SBL	2	3400	80	.02	210	.06*
SBT	3	5100	1810	.35*	1230	.24		SBT	3	5100	1890	.37*	1230	.24
SBR	1	1700	300	.18	50	.03		SBR	1	1700	270	.16	50	.03
EBL	2	3400	100	.03*	130	.04		EBL	2	3400	100	.03*	140	.04
EBT	2	3400	370	.11	1090	.32*		EBT	2	3400	370	.11	1090	.32*
EBR	1	1700	160	.09	310	.18		EBR	1	1700	160	.09	310	.18
WBL	2	3400	330	.10	340	.10*		WBL	2	3400	300	.09	340	.10*
WBT	2	3400	910	.27*	590	.17		WBT	2	3400	960	.28*	590	.17
WBR	1	1700	160	.09	230	.14		WBR	1	1700	140	.08	240	.14
Clearance Interval			.05*			.05*	Clearance Interval					.05*	.05*	
TOTAL CAPACITY UTILIZATION			.73			.86	TOTAL CAPACITY UTILIZATION			.76		.87		

30. Los Alisos & Muirlands

2030 No SBRA Project						2030 With SBRA Project						
	LANES	CAPACITY	AM VOL	PK V/C	HOUR		LANES	CAPACITY	AM VOL	PK V/C	HOUR	
NBL	1	1700	270	.16*	.14		NBL	1	1700	270	.16*	.14
NBT	3	5100	740	.15	.34*		NBT	3	5100	760	.15	.35*
NBR	1	1700	80	.05	.16		NBR	1	1700	90	.05	.15
SBL	1	1700	420	.25	.22*		SBL	1	1700	390	.23	.19*
SBT	3	5100	1340	.26*	.19		SBT	3	5100	1370	.27*	.20
SBR	d	1700	240	.14	.14		SBR	d	1700	250	.15	.14
EBL	1	1700	250	.15*	.31*		EBL	1	1700	230	.14*	.30*
EBT	2	3400	340	.14	.30		EBT	2	3400	350	.14	.31
EBR	0	0	120		200		EBR	0	0	130		200
WBL	1	1700	240	.14	.08		WBL	1	1700	240	.14	.08
WBT	2	3400	1310	.39*	.17*		WBT	2	3400	1310	.39*	.17*
WBR	1	1700	200	.12	.14		WBR	1	1700	210	.12	.14
Clearance Interval			.05*		.05*	Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			1.01		1.09	TOTAL CAPACITY UTILIZATION			1.01		1.06	

2030 With SBRA Project & LFTM					
	LANES	CAPACITY	AM VOL	PK V/C	HOUR
NBL	2	3400	270	.08*	.07
NBT	3	5100	760	.15	.35*
NBR	1	1700	90	.05	.15
SBL	2	3400	390	.11	.09*
SBT	3	5100	1370	.27*	.20
SBR	d	1700	250	.15	.14
EBL	2	3400	230	.07*	.15
EBT	2	3400	350	.14	.31*
EBR	0	0	130		200
WBL	1	1700	240	.14	.08*
WBT	2	3400	1310	.39*	.17
WBR	1	1700	210	.12	.14
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.86		.88

31. Lake Forest & Rockfield

2030 No SBRA Project						2030 With SBRA Project					
	LANES	CAPACITY	AM VOL	PK V/C	HOUR		LANES	CAPACITY	AM VOL	PK V/C	HOUR
NBL	2	3400	610	.18*	.19	NBL	2	3400	610	.18*	.19
NBT	3	5100	1270	.25	.41*	NBT	3	5100	1270	.25	.42*
NBR	1	1700	230	.14	.31	NBR	1	1700	230	.14	.31
SBL	2	3400	120	.04	.05*	SBL	2	3400	130	.04	.05*
SBT	4	6800	2270	.35*	.21	SBT	4	6800	2330	.36*	.22
SBR	0	0	120		110	SBR	0	0	100		110
EBL	2	3400	60	.02*	.08	EBL	2	3400	60	.02*	.08
EBT	2	3400	170	.05	.23*	EBT	2	3400	160	.05	.24*
EBR	2	3400	210	.06	.09	EBR	2	3400	210	.06	.09
WBL	2	3400	550	.16	.17*	WBL	2	3400	540	.16	.17*
WBT	2	3400	720	.21*	.07	WBT	2	3400	740	.22*	.08
WBR	1	1700	120	.07	.10	WBR	1	1700	110	.06	.10
Clearance Interval			.05*		.05*	Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.81		.91	TOTAL CAPACITY UTILIZATION			.83		.93

2030 With SBRA Project & LFTM					
	LANES	CAPACITY	AM VOL	PK V/C	HOUR
NBL	2	3400	610	.18*	.19
NBT	3	5100	1270	.25	.42*
NBR	1	1700	230	.14	.31
SBL	2	3400	130	.04	.05*
SBT	4	6800	2330	.36*	.22
SBR	0	0	100		110
EBL	2	3400	60	.02*	.08
EBT	2	3400	160	.05	.24*
EBR	2	3400	210	.06	.09
WBL	2.5		540	.16	580 {.12}*{.12}
WBT	1.5	6800	740	.22*	260 .12
WBR	1	1700	110	.06	170 .10
Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.83		.88

32. Ridge Route & Rockfield

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0.5		70		30		NBL	0.5		70		30	
NBT	1.5	3400	40	.05*	20	.02*	NBT	1.5	3400	30	.04*	20	.02*
NBR	0		50		10		NBR	0		50		10	
SBL	0.5		180	.11*	120	.07*	SBL	0.5		190	.11*	120	.07*
SBT	1.5	3400	10	.01	20	.01	SBT	1.5	3400	10	.01	20	.01
SBR	d	1700	250	.15	150	.09	SBR	d	1700	240	.14	150	.09
EBL	1	1700	60	.04*	290	.17	EBL	1	1700	50	.03*	290	.17
EBT	2	3400	250	.08	1620	.49*	EBT	2	3400	270	.08	1610	.49*
EBR	0	0	10		50		EBR	0	0	10		60	
WBL	1	1700	10	.01	20	.01*	WBL	1	1700	10	.01	20	.01*
WBT	2	3400	820	.26*	570	.21	WBT	2	3400	820	.26*	580	.21
WBR	0	0	70		130		WBR	0	0	80		140	
Right Turn Adjustment		SBR	.01*				Right Turn Adjustment		SBR	.01*			
Clearance Interval			.05*			.05*	Clearance Interval			.05*			.05*
Note: Assumes N/S Split Phasing			Note: Assumes N/S Split Phasing										
TOTAL CAPACITY UTILIZATION			.52		.64		TOTAL CAPACITY UTILIZATION			.50		.64	

33. El Toro & Rockfield

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	300	.09*	380	.11*	NBL	2	3400	290	.09*	370	.11*
NBT	4	6800	1150	.17	1570	.23	NBT	4	6800	1120	.16	1600	.24
NBR	d	1700	80	.05	370	.22	NBR	d	1700	80	.05	400	.24
SBL	2	3400	150	.04	230	.07	SBL	2	3400	150	.04	240	.07
SBT	4	6800	1780	.28*	1630	.25*	SBT	4	6800	1830	.29*	1630	.25*
SBR	0	0	110		80		SBR	0	0	140		90	
EBL	2	3400	160	.05	550	.16	EBL	2	3400	170	.05	570	.17
EBT	2	3400	100	.03*	800	.24*	EBT	2	3400	110	.03*	790	.23*
EBR	f		230		250		EBR	f		240		250	
WBL	2	3400	520	.15*	330	.10*	WBL	2	3400	520	.15*	330	.10*
WBT	2	3400	290	.09	340	.10	WBT	2	3400	260	.08	340	.10
WBR	1	1700	170	.10	90	.05	WBR	1	1700	170	.10	90	.05
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.60		.75		TOTAL CAPACITY UTILIZATION			.61		.74	

34. Los Alisos & Rockfield

2030 No SBRA Project						2030 With SBRA Project								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	360	.21*	350	.21*		NBL	1	1700	340	.20*	350	.21*
NBT	2	3400	930	.28	1590	.47		NBT	2	3400	940	.28	1570	.46
NBR	0	0	10		10			NBR	0	0	10		10	
SBL	1	1700	10	.01	20	.01		SBL	1	1700	10	.01	10	.01
SBT	2	3400	1040	.49*	1020	.39*		SBT	2	3400	1060	.50*	1020	.39*
SBR	0	0	620		290			SBR	0	0	630		290	
EBL	1.5		200		670			EBL	1.5		210		700	
EBT	0.5	3400	90	.09*	50	.21*		EBT	0.5	3400	90	.09*	50	.22*
EBR	1	1700	210	.12	420	.25		EBR	1	1700	200	.12	420	.25
WBL	0	0	20		20			WBL	0	0	20		20	
WBT	1	1700	110	.08*	70	.05*		WBT	1	1700	110	.08*	70	.05*
WBR	d	1700	40	.02	20	.01		WBR	d	1700	40	.02	20	.01
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*		
Note: Assumes E/W Split Phasing						Note: Assumes E/W Split Phasing								
TOTAL CAPACITY UTILIZATION			.92		.91		TOTAL CAPACITY UTILIZATION			.92		.92		

2030 With SBRA Project & LFTM						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	340	.20*	350	.21*
NBT	2	3400	940	.28	1570	.46
NBR	0	0	10		10	
SBL	1	1700	10	.01	10	.01
SBT	2	3400	1060	.31*	1020	.30*
SBR	1	1700	630	.37	290	.17
EBL	1.5		210		700	
EBT	0.5	3400	90	.09*	50	.22*
EBR	1	1700	200	.12	420	.25
WBL	0	0	20		20	
WBT	1	1700	110	.08*	70	.05*
WBR	d	1700	40	.02	20	.01
Clearance Interval			.05*		.05*	
Note: Assumes E/W Split Phasing						
TOTAL CAPACITY UTILIZATION			.73		.83	

35. Lake Forest & I-5 NB

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0	0	0		0		NBL	0	0	0		0	
NBT	3	5100	2000	.39*	2950	.58*	NBT	3	5100	1970	.39*	2980	.58*
NBR	0	0	0		0		NBR	0	0	0		0	
SBL	0	0	0		0		SBL	0	0	0		0	
SBT	3	5100	1750	.34	1740	.34	SBT	3	5100	1780	.35	1750	.34
SBR	f		1310		1020		SBR	f		1340		1040	
EBL	0	0	0		0		EBL	0	0	0		0	
EBT	0	0	0		0		EBT	0	0	0		0	
EBR	0	0	0		0		EBR	0	0	0		0	
WBL	2	3400	920	.27*	370	.11*	WBL	2	3400	910	.27*	350	.10*
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	2	3400	600	.18	350	.10	WBR	2	3400	600	.18	380	.11
Clearance Interval			.05*		.05*		Right Turn Adjustment						
TOTAL CAPACITY UTILIZATION			.71		.74		Clearance Interval			.05*			
							WBR			.01*			
										.05*			
				</									

36. Lake Forest & I-5/Carlota

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0	0	0		0		NBL	0	0	0		0	
NBT	4	6800	860	.14	2000	.32*	NBT	4	6800	860	.14	2010	.32*
NBR	0	0	80		150		NBR	0	0	80		150	
SBL	2	3400	430	.13	540	.16*	SBL	2	3400	440	.13	540	.16*
SBT	3	5100	1690	.33*	1070	.21	SBT	3	5100	1710	.34*	1050	.21
SBR	f		450		570		SBR			460		570	
EBL	2.5		1080		1760		EBL	2.5		1070		1780	
EBT	1.5	6800	600	.25*	930	.40*	EBT	1.5	6800	610	.25*	940	.40*
EBR	1	1700	500	.29	290	.17	EBR	1	1700	490	.29	330	.19
WBL	1	1700	200	.12*	240	.14*	WBL	1	1700	200	.12*	250	.15*
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	2	3400	240	.07	550	.16	WBR	2	3400	230	.07	540	.16
Right Turn Adjustment		EBR	.04*				Right Turn Adjustment		EBR	.04*			
Clearance Interval			.05*				Clearance Interval			.05*			.05*
Note: Assumes E/W Split Phasing							Note: Assumes E/W Split Phasing						
TOTAL CAPACITY UTILIZATION			.79		1.07		TOTAL CAPACITY UTILIZATION			.80		1.08	

2030 With SBRA Project & LFTM					
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL
NBL	0	0	0		0
NBT	4	6800	860	.14	2010
NBR	0	0	80		150
SBL	2	3400	440	.13	540
SBT	3	5100	1710	.34*	1050
SBR	f		460		570
EBL	3	5100	1070	.21*	1780
EBT	2	3400	610	.18	940
EBR	1	1700	490	.29	330
WBL	2	3400	200	.06*	250
WBT	0	0	0		0
WBR	2	3400	230	.07	540
Right Turn Adjustment		EBR	.08*		
Clearance Interval			.05*		.05*
Note: Assumes E/W Split Phasing					
Note: Assumes Right-Turn Overlap for WBR					
TOTAL CAPACITY UTILIZATION			.74		.95

37. Paseo De Valencia & Carlota

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	280	.08*	250	.07*	NBL	2	3400	270	.08*	250	.07*
NBT	1	1700	20	.01	100	.06	NBT	1	1700	20	.01	100	.06
NBR	1	1700	80	.05	280	.16	NBR	1	1700	80	.05	280	.16
SBL	2	3400	1010	.30*	1250	.37*	SBL	2	3400	1000	.29*	1270	.37*
SBT	2	3400	720	.21	560	.18	SBT	2	3400	720	.21	540	.17
SBR	0	0	10		60		SBR	0	0	10		50	
EBL	2	3400	60	.02*	500	.15*	EBL	2	3400	50	.01*	490	.14*
EBT	2	3400	350	.10	910	.27	EBT	2	3400	370	.11	920	.27
EBR	1	1700	110	.06	780	.46	EBR	1	1700	110	.06	790	.46
WBL	1	1700	50	.03	50	.03	WBL	1	1700	60	.04	50	.03
WBT	2	3400	690	.20*	650	.19*	WBT	2	3400	720	.21*	650	.19*
WBR	1	1700	570	.34	540	.32	WBR	1	1700	580	.34	550	.32
Right Turn Adjustment				Multi	.14*		Right Turn Adjustment			Multi	.15*		
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
Note: Assumes N/S Split Phasing						Note: Assumes N/S Split Phasing							
TOTAL CAPACITY UTILIZATION			.65		.97	TOTAL CAPACITY UTILIZATION			.64		.97		

2030 With SBRA Project & LFTM						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	
NBL	2	3400	270	.08*	250	.07*
NBT	1	1700	20	.01	100	.06
NBR	1	1700	80	.05	280	.16
SBL	2.5		1000		1270	
SBT	1.5	6800	720	.25*	540	.27*
SBR	0		10		50	
EBL	2	3400	50	.01*	490	.14*
EBT	2	3400	370	.11	920	.27
EBR	1	1700	110	.06	790	.46
WBL	1	1700	60	.04	50	.03
WBT	2	3400	720	.21*	650	.19*
WBR	1	1700	580	.34	550	.32
Right Turn Adjustment				Multi	.15*	
Clearance Interval			.05*		.05*	
Note: Assumes N/S Split Phasing						
TOTAL CAPACITY UTILIZATION			.60		.87	

38. El Toro & Bridger/I-5 NB

2030 No SBRA Project						2030 With SBRA Project								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	60	.04*	160	.09	NBL	1	1700	60	.04*	160	.09	
NBT	2.5	6800	1180	{.31}	1630	{.38}* 1230	NBT	2.5	6800	1170	{.31}	1700	{.38}* 1240	
NBR	1.5				1270		NBR	1.5				1260		
SBL	0	0	0		0		SBL	0	0	0		0		
SBT	5	8500	2610	.32*	2210	.27	SBT	5	8500	2690	.33*	2200	.27	
SBR	0	0	80		90		SBR	0	0	80		90		
EBL	1	1700	40	.02*	110	.06*	EBL	1	1700	40	.02*	110	.06*	
EBT	1	1700	10	.01	10	.01	EBT	1	1700	10	.01	10	.01	
EBR	1	1700	150	.09	220	.13	EBR	1	1700	150	.09	220	.13	
WBL	1.5		590		560		WBL	1.5		600		560		
WBT	0	5100	80	{.24}* 670	60	.22*	WBT	0	5100	80	{.24}* 650	60	.23*	590
WBR	1.5				580		WBR	1.5						
Right Turn Adjustment		EBR	.03*				Right Turn Adjustment		EBR	.03*				
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*		
Note: Assumes Right-Turn Overlap for EBR			Note: Assumes Right-Turn Overlap for EBR											
TOTAL CAPACITY UTILIZATION			.70		.71		TOTAL CAPACITY UTILIZATION			.71		.72		

39. El Toro & Avd Carlota

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR		LANES	CAPACITY	AM VOL	PK V/C	HOUR		
NBL	0	0	0		0	NBL	0	0	0		0		
NBT	4	6800	940	.14	1720	.25*	NBT	4	6800	950	.14	1720	.25*
NBR	d	1700	10	.01	30	.02	NBR	d	1700	10	.01	20	.01
SBL	2	3400	90	.03	330	.10*	SBL	2	3400	90	.03	330	.10*
SBT	3	5100	980	.19*	760	.15	SBT	3	5100	1000	.20*	760	.15
SBR	1	1700	1070	.63	980	.58	SBR	1	1700	1090	.64	980	.58
EBL	3	5100	1010	.20*	1150	.23	EBL	3	5100	1020	.20*	1190	.23
EBT	2	3400	280	.08	1000	.29*	EBT	2	3400	300	.09	1020	.30*
EBR	1	1700	250	.15	190	.11	EBR	1	1700	230	.14	160	.09
WBL	0	0	10		20	WBL	0	0	10		20		
WBT	1	1700	200	.12*	120	.08*	WBT	1	1700	230	.14*	120	.08*
WBR	2	3400	420	.12	650	.19	WBR	2	3400	410	.12	670	.20
Right Turn Adjustment	SBR	.24*	WBR	.01*		Right Turn Adjustment	SBR	.24*	WBR	.02*			
Clearance Interval		.05*		.05*		Clearance Interval		.05*		.05*			
Note: Assumes E/W Split Phasing						Note: Assumes E/W Split Phasing							
Note: Assumes Right-Turn Overlap for SBR WBR						Note: Assumes Right-Turn Overlap for SBR WBR							
TOTAL CAPACITY UTILIZATION		.80		.78		TOTAL CAPACITY UTILIZATION		.83		.80			

40. Portola & Rancho

2030 No SBRA Project						2030 With SBRA Project								
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	1240	.36*	720	.21*		NBL	2	3400	1250	.37*	730	.21*
NBT	4	6800	1410	.21	1630	.24		NBT	4	6800	1320	.19	1610	.24
NBR	0	0	0		0			NBR	0	0	0		0	
SBL	0	0	0		0			SBL	0	0	0		0	
SBT	4	6800	730	.11*	1560	.23*		SBT	4	6800	740	.11*	1510	.22*
SBR	d	1700	370	.22	110	.06		SBR	d	1700	350	.21	100	.06
EBL	1.5		80	.02*	180	.11*		EBL	1.5		80	.02*	160	.09*
EBT	0	5100	0		0			EBT	0	5100	0		0	
EBR	1.5		470	.14	1320	.39		EBR	1.5		490	.14	1300	.38
WBL	0	0	0		0			WBL	0	0	0		0	
WBT	0	0	0		0			WBT	0	0	0		0	
WBR	0	0	0		0			WBR	0	0	0		0	
Right Turn Adjustment		SBR	.09*		EBR	.12*		Right Turn Adjustment		SBR	.08*		EBR	.13*
Clearance Interval			.05*			.05*					.05*		.05*	
TOTAL CAPACITY UTILIZATION			.63		.72		TOTAL CAPACITY UTILIZATION			.63		.70		

41. Alton & Towne Centre Dr

2030 No SBRA Project						2030 With SBRA Project								
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	220	.06*	160	.05		NBL	2	3400	160	.05*	140	.04
NBT	3	5100	770	.15	2340	.46*		NBT	3	5100	960	.19	2180	.43*
NBR	0	0	0		0			NBR	1	1700	300	.18	240	.14
SBL	0	0	0		0			SBL	2	3400	200	.06	50	.01*
SBT	3	5100	2530	.50*	1260	.25		SBT	3	5100	2260	.44*	1360	.27
SBR	1	1700	240	.14	130	.08		SBR	1	1700	170	.10	110	.06
EBL	1	1700	70	.04*	240	.14*		EBL	1	1700	50	.03	200	.12
EBT	0	0	0		0			EBT	1	1700	30	.02*	80	.05*
EBR	1	1700	120	.07	230	.14		EBR	1	1700	110	.06	190	.11
WBL	0	0	0		0			WBL	1	1700	220	.13*	350	.21*
WBT	0	0	0		0			WBT	1	1700	90	.05	50	.03
WBR	0	0	0		0			WBR	1	1700	30	.02	200	.12
Clearance Interval			.05*			.05*					.05*		.05*	
TOTAL CAPACITY UTILIZATION			.65		.65		TOTAL CAPACITY UTILIZATION			.69		.75		

42. Alton & Commercentre

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR		
NBL	0	0	0		0	NBL	0	0	0		0		
NBT	3	5100	900	.18	2230	.44*	NBT	3	5100	1120	.22	2540	.50*
NBR	d	1700	510	.30	240	.14	NBR	d	1700	350	.21	210	.12
SBL	1	1700	220	.13	150	.09*	SBL	1	1700	230	.14	140	.08*
SBT	3	5100	2430	.48*	1330	.26	SBT	3	5100	2730	.54*	1620	.32
SBR	0	0	0		0	SBR	0	0	0		0		
EBL	0	0	0		0	EBL	0	0	0		0		
EBT	0	0	0		0	EBT	0	0	0		0		
EBR	0	0	0		0	EBR	0	0	0		0		
WBL	1.5		170	.05*	600	.18*	WBL	1.5		130	.04*	430	.13*
WBT	0	5100	0		0	WBT	0	5100	0		0		
WBR	1.5		90	{ .00 }	270	.16	WBR	1.5		80	{ .00 }	230	{ .08 }
Clearance Interval			.05*		.05*	Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.58		.76	TOTAL CAPACITY UTILIZATION			.63		.76		

56. Bake & Dimension Dr

2030 No SBRA Project						2030 With SBRA Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR		
NBL	0	0	0		0	NBL	1	1700	20	.01*	70	.04	
NBT	2	3400	1220	.36	1750	.51*	NBT	2	3400	1010	.30	1680	.49*
NBR	d	1700	160	.09	70	.04	NBR	d	1700	140	.08	50	.03
SBL	1	1700	200	.12	190	.11*	SBL	1	1700	290	.17	190	.11*
SBT	2	3400	1720	.51*	1380	.41	SBT	2	3400	1620	.49*	1220	.39
SBR	0	0	0		0	SBR	0	0	30		100		
EBL	0	0	0		0	EBL	1	1700	120	.07	60	.04	
EBT	0	0	0		0	EBT	1	1700	60	.09*	30	.03*	
EBR	0	0	0		0	EBR	0	0	90		20		
WBL	2	3400	100	.03*	240	.07*	WBL	1	1700	70	.04*	220	.13*
WBT	0	0	0		0	WBT	1	1700	20	.01	60	.04	
WBR	1	1700	100	.06	250	.15	WBR	1	1700	120	.07	340	.20
Clearance Interval			.05*		.05*	Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.59		.74	TOTAL CAPACITY UTILIZATION			.68		.81		

DRAFT

2015

1. Alton & Portola

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	30	.02	140	.08*	NBL	1	1700	40	.02	140	.08*
NBT	2	3400	80	.02*	170	.05	NBT	2	3400	80	.02*	180	.05
NBR	f		290		600		NBR	f		340		670	
SBL	1	1700	220	.13*	90	.05	SBL	1	1700	220	.13*	90	.05
SBT	2	3400	140	.04	100	.03*	SBT	2	3400	140	.04	100	.03*
SBR	d	1700	0	.00	10	.01	SBR	d	1700	0	.00	10	.01
EBL	2	3400	10	.00	10	.00	EBL	2	3400	10	.00	10	.00
EBT	2	3400	270	.08*	110	.03*	EBT	2	3400	270	.08*	110	.03*
EBR	f		100		60		EBR	f		100		60	
WBL	2	3400	510	.15*	360	.11*	WBL	2	3400	540	.16*	420	.12*
WBT	3	5100	140	.03	230	.05	WBT	3	5100	140	.03	230	.05
WBR	f		90		180		WBR	f		90		170	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.43		.30		TOTAL CAPACITY UTILIZATION			.44		.31	

2. Bake & Portola

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	50	.03	230	.14	NBL	1	1700	50	.03	230	.14
NBT	1.5	5100	130	{.04}* [*]	330	{.16}* [*]	NBT	1.5	5100	140	{.04}* [*]	320	{.14}* [*]
NBR	1.5		100		900		NBR	1.5		100		830	
SBL	1	1700	130	.08*	270	.16*	SBL	1	1700	140	.08*	270	.16*
SBT	2	3400	270	.08	280	.08	SBT	2	3400	260	.08	290	.09
SBR	d	1700	230	.14	330	.19	SBR	d	1700	250	.15	330	.19
EBL	1	1700	300	.18*	370	.22*	EBL	1	1700	300	.18*	380	.22*
EBT	3	5100	280	.05	670	.13	EBT	3	5100	290	.06	660	.13
EBR	d	1700	70	.04	60	.04	EBR	d	1700	60	.04	60	.04
WBL	2	3400	910	.27	570	.17	WBL	2	3400	910	.27	570	.17
WBT	2	3400	610	.18*	800	.24*	WBT	2	3400	560	.16*	800	.24*
WBR	d	1700	70	.04	160	.09	WBR	d	1700	70	.04	160	.09
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.53		.83		TOTAL CAPACITY UTILIZATION			.51		.81	

3. Lake Forest & Portola

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	40	.02	90	.05	NBL	1	1700	40	.02	90	.05
NBT	2	3400	110	.03*	100	.03*	NBT	2	3400	110	.03*	100	.03*
NBR	d	1700	230	.14	430	.25	NBR	d	1700	290	.17	470	.28
SBL	1	1700	230	.14*	230	.14*	SBL	1	1700	230	.14*	220	.13*
SBT	2	3400	100	.03	130	.04	SBT	2	3400	90	.03	150	.04
SBR	d	1700	10	.01	10	.01	SBR	d	1700	10	.01	10	.01
EBL	2	3400	10	.00	10	.00	EBL	2	3400	20	.01*	10	.00
EBT	3	5100	490	.10	1450	.28*	EBT	3	5100	500	.10	1370	.27*
EBR	d	1700	50	.03	40	.02	EBR	d	1700	50	.03	30	.02
WBL	2	3400	720	.21	450	.13*	WBL	2	3400	750	.22	450	.13*
WBT	3	5100	1630	.32*	1080	.21	WBT	3	5100	1590	.31*	1070	.21
WBR	d	1700	260	.15	160	.09	WBR	d	1700	270	.16	170	.10
Right Turn Adjustment					NBR	.12*	Right Turn Adjustment					NBR	.15*
Clearance Interval				.05*		.05*	Clearance Interval						.05*
TOTAL CAPACITY UTILIZATION			.54			.75	TOTAL CAPACITY UTILIZATION			.54		.76	

4. Glenn Ranch & Portola

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	60	.04	80	.05	NBL	1	1700	60	.04	100	.06
NBT	2	3400	20	.01*	20	.01*	NBT	2	3400	20	.01*	20	.01*
NBR	0	0	30	.02	70	.04	NBR	0	0	30	.02	60	.04
SBL	2	3400	490	.14*	360	.11*	SBL	2	3400	480	.14*	350	.10*
SBT	2	3400	50	.01	20	.01	SBT	2	3400	50	.01	20	.01
SBR	f		910		670		SBR	f		920		680	
EBL	2	3400	420	.12*	1070	.31*	EBL	2	3400	460	.14*	1060	.31*
EBT	3	5100	560	.11	1590	.31	EBT	3	5100	570	.11	1530	.30
EBR	1	1700	30	.02	70	.04	EBR	1	1700	40	.02	70	.04
WBL	2	3400	100	.03	70	.02	WBL	2	3400	100	.03	60	.02
WBT	3	5100	1420	.28*	800	.16*	WBT	3	5100	1390	.27*	760	.15*
WBR	1	1700	70	.04	360	.21	WBR	1	1700	60	.04	380	.22
Clearance Interval				.05*		.05*	Clearance Interval				.05*		.05*
Note: Assumes Right-Turn Overlap for WBR					Note: Assumes Right-Turn Overlap for WBR								
TOTAL CAPACITY UTILIZATION			.60			.64	TOTAL CAPACITY UTILIZATION			.61		.62	

5. Portola & SR-241 Ramps

2015 No SBRA Project						2015 With SBRA Project									
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR				
NBL	2	3400	600	.18*	.280	.08			NBL	2	3400	610	.18*	.300	.09
NBT	3	5100	900	.18	.920	.18*			NBT	3	5100	850	.17	.900	.18*
NBR	f		40		150				NBR	f		30		100	
SBL	2	3400	220	.06	.910	.27*			SBL	2	3400	220	.06	.900	.26*
SBT	2	3400	670	.20*	1080	.32			SBT	2	3400	650	.19*	1030	.30
SBR	f		260		100				SBR	f		260		80	
EBL	1	1700	120	.07*	170	.10*			EBL	1	1700	100	.06*	180	.11*
EBT	0	0	0		0				EBT	0	0	0		0	
EBR	f		230		470				EBR	f		270		450	
WBL	2	3400	120	.04	30	.01			WBL	2	3400	110	.03	30	.01
WBT	0	0	0		0				WBT	0	0	0		0	
WBR	f		1520		350				WBR	f		1540		330	
Clearance Interval				.05*		.05*			Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.50		.60			TOTAL CAPACITY UTILIZATION				.48		.60

6. Alton & SR-241 Ramps

2015 No SBRA Project						2015 With SBRA Project									
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR				
NBL	1	1700	20	.01*	80	.05			NBL	1	1700	70	.04*	180	.11
NBT	2	3400	520	.15	920	.27*			NBT	2	3400	670	.20	1070	.31*
NBR	f		160		570				NBR	f		220		540	
SBL	1	1700	130	.08	80	.05*			SBL	1	1700	130	.08	80	.05*
SBT	2	3400	1080	.32*	730	.21			SBT	2	3400	1120	.33*	840	.25
SBR	f		210		220				SBR	f		230		190	
EBL	2	3400	210	.06	210	.06			EBL	2	3400	210	.06	190	.06
EBT	0	0	0		0				EBT	0	0	0		0	
EBR	f		80		30				EBR	f		210		100	
WBL	2	3400	510	.15*	280	.08*			WBL	2	3400	460	.14*	330	.10*
WBT	0	0	0		0				WBT	0	0	0		0	
WBR	f		130		110				WBR	f		90		100	
Clearance Interval				.05*		.05*			Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.53		.45			TOTAL CAPACITY UTILIZATION				.56		.51

7. Lake Forest & SR-241 NB

2015 No SBRA Project								2015 With SBRA Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	PM VOL	PK V/C	HOUR	
NBL	2	3400	150	.04		320	.09*		NBL	2	3400	130	.04		.08
NBT	2	3400	860	.25*		970	.29		NBT	2	3400	890	.26*	1010	.30*
NBR	0	0	0			0			NBR	0	0	0		0	
SBL	0	0	0			0			SBL	0	0	0		0	
SBT	2	3400	710	.21		780	.23*		SBT	2	3400	710	.21	760	.22
SBR	1	1700	100	.06		280	.16		SBR	1	1700	120	.07	320	.19
EBL	0	0	0			0			EBL	0	0	0		0	
EBT	0	0	0			0			EBT	0	0	0		0	
EBR	0	0	0			0			EBR	0	0	0		0	
WBL	0	0	0			0			WBL	0	0	0		0	
WBT	0	0	0			0			WBT	0	0	0		0	
WBR	0	0	0			0			WBR	0	0	0		0	
Clearance Interval				.05*			.05*		Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.30			.37		TOTAL CAPACITY UTILIZATION				.31		.35

8. Lake Forest & SR-241 SB

2015 No SBRA Project								2015 With SBRA Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	PM VOL	PK V/C	HOUR	
NBL	0	0	0			0			NBL	0	0	0		0	
NBT	2	3400	760	.22*		1160	.34*		NBT	2	3400	730	.21	1140	.34*
NBR	0	0	0			0			NBR	0	0	0		0	
SBL	0	0	0			0			SBL	0	0	0		0	
SBT	2	3400	710	.21		780	.23		SBT	2	3400	710	.21*	760	.22
SBR	0	0	0			0			SBR	0	0	0		0	
EBL	2	3400	240	.07*		130	.04*		EBL	2	3400	290	.09*	130	.04*
EBT	0	0	0			0			EBT	0	0	0		0	
EBR	1	1700	360	.21		230	.14		EBR	1	1700	250	.15	230	.14
WBL	0	0	0			0			WBL	0	0	0		0	
WBT	0	0	0			0			WBT	0	0	0		0	
WBR	0	0	0			0			WBR	0	0	0		0	
Right Turn Adjustment			EBR	.13*		EBR	.02*		Right Turn Adjustment			EBR	.06*		.01*
Clearance Interval				.05*			.05*		Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.47			.45		TOTAL CAPACITY UTILIZATION				.41		.44

9. Bake & Rancho N

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0	0	0		0		NBL	0	0	0		0	
NBT	2	3400	580	.17	1670	.49*	NBT	2	3400	630	.19	1590	.47*
NBR	d	1700	230	.14	390	.23	NBR	d	1700	310	.18	480	.28
SBL	1	1700	70	.04	150	.09*	SBL	1	1700	60	.04	140	.08*
SBT	2	3400	1430	.42*	700	.21	SBT	2	3400	1410	.41*	770	.23
SBR	0	0	0		0		SBR	0	0	0		0	
EBL	0	0	0		0		EBL	0	0	0		0	
EBT	0	0	0		0		EBT	0	0	0		0	
EBR	0	0	0		0		EBR	0	0	0		0	
WBL	2	3400	490	.14*	290	.09*	WBL	2	3400	500	.15*	380	.11*
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	2	3400	30	.01	190	.06	WBR	2	3400	30	.01	180	.05
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.61		.72		TOTAL CAPACITY UTILIZATION			.61		.71	

10. Lake Forest & Rancho

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	110	.06*	220	.13*	NBL	1	1700	110	.06*	240	.14*
NBT	2	3400	710	.21	1080	.32	NBT	2	3400	700	.21	1070	.31
NBR	d	1700	280	.16	480	.28	NBR	d	1700	290	.17	450	.26
SBL	1	1700	140	.08	90	.05	SBL	1	1700	140	.08	100	.06
SBT	2	3400	910	.27*	870	.26*	SBT	2	3400	830	.24*	850	.25*
SBR	d	1700	80	.05	70	.04	SBR	d	1700	50	.03	60	.04
EBL	1	1700	20	.01	40	.02	EBL	1	1700	20	.01	30	.02
EBT	1	1700	130	.08*	380	.22*	EBT	1	1700	170	.10*	420	.25*
EBR	1	1700	40	.02	90	.05	EBR	1	1700	60	.04	100	.06
WBL	1	1700	240	.14*	280	.16*	WBL	1	1700	240	.14*	270	.16*
WBT	2	3400	550	.16	250	.07	WBT	2	3400	560	.16	310	.09
WBR	1	1700	50	.03	170	.10	WBR	1	1700	40	.02	160	.09
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.60		.82		TOTAL CAPACITY UTILIZATION			.59		.85	

11. Bake & Rancho S

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	0	.00	0	.00	NBL	1	1700	50	.03*	110	.06
NBT	2	3400	850	.25	2070	.61*	NBT	2	3400	870	.26	1960	.58*
NBR	0	0	0		0		NBR	0	0	0		0	
SBL	0	0	0		0		SBL	0	0	0		0	
SBT	2	3400	1850	.54*	1070	.31	SBT	2	3400	1680	.49*	1090	.32
SBR	1	1700	10	.01	10	.01	SBR	1	1700	170	.10	140	.08
EBL	2	3400	0	.00	10	.00	EBL	2	3400	120	.04*	120	.04*
EBT	0	0	0		0		EBT	0	0	0		0	
EBR	1	1700	0	.00	0	.00	EBR	1	1700	110	.06	50	.03
WBL	0	0	0		0		WBL	0	0	0		0	
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	0	0	0		0		WBR	0	0	0		0	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.59		.66		TOTAL CAPACITY UTILIZATION			.61		.67	

12. El Toro & Portola/Santa M

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	320	.19*	370	.22*	NBL	1	1700	320	.19*	370	.22*
NBT	3	5100	170	.03	420	.08	NBT	3	5100	170	.03	430	.08
NBR	f		300		490		NBR	f		300		510	
SBL	1	1700	50	.03	330	.19	SBL	1	1700	50	.03	330	.19
SBT	3	5100	490	.10*	550	.11*	SBT	3	5100	500	.10*	570	.11*
SBR	1	1700	270	.16	650	.38	SBR	1	1700	260	.15	640	.38
EBL	2	3400	50	.01	430	.13	EBL	2	3400	50	.01	410	.12
EBT	3	5100	600	.12*	1310	.26*	EBT	3	5100	660	.13*	1260	.25*
EBR	1	1700	380	.22	630	.37	EBR	1	1700	350	.21	650	.38
WBL	2	3400	490	.14*	430	.13*	WBL	2	3400	490	.14*	420	.12*
WBT	4	6800	1620	.24	1010	.15	WBT	4	6800	1600	.24	1030	.15
WBR	d	1700	20	.01	40	.02	WBR	d	1700	20	.01	40	.02
Right Turn Adjustment			SBR	.04*	SBR	.09*	Right Turn Adjustment			SBR	.03*	SBR	.10*
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.64		.86		TOTAL CAPACITY UTILIZATION			.64		.85	

13. Bake & Commercentre

2015 No SBRA Project								2015 With SBRA Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	
NBL	1	1700	60	.04*	10	.01			NBL	1	1700	70	.04*	10	.01
NBT	2	3400	1000	.29	1370	.40*			NBT	2	3400	920	.27	1340	.39*
NBR	d	1700	740	.44	240	.14			NBR	d	1700	780	.46	260	.15
SBL	1	1700	40	.02	80	.05*			SBL	1	1700	30	.02	60	.04*
SBT	2	3400	1160	.34*	860	.25			SBT	2	3400	1210	.36*	860	.25
SBR	d	1700	190	.11	90	.05			SBR	d	1700	60	.04	30	.02
EBL	1	1700	160	.09*	220	.13			EBL	1	1700	70	.04	170	.10
EBT	2	3400	140	.04	80	.04*			EBT	2	3400	130	.05*	90	.04*
EBR	0	0	10		40				EBR	0	0	40		60	
WBL	2	3400	270	.08	670	.20*			WBL	2	3400	330	.10*	660	.19*
WBT	1	1700	100	.08*	70	.06			WBT	1	1700	50	.04	100	.08
WBR	0	0	30		40				WBR	0	0	20		30	
Clearance Interval				.05*		.05*			Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.60		.74			TOTAL CAPACITY UTILIZATION				.60		.71

14. Bake & Irvine/Trabuco

2015 No SBRA Project								2015 With SBRA Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	
NBL	1	1700	610	.36*	450	.26*			NBL	1	1700	630	.37*	500	.29*
NBT	3	5100	1460	.33	1280	.38			NBT	3	5100	1420	.32	1340	.39
NBR	0	0	210		650	.38			NBR	0	0	210		630	
SBL	2	3400	40	.01	180	.05			SBL	2	3400	40	.01	180	.05
SBT	3	5100	1160	.23*	1470	.29*			SBT	3	5100	1280	.25*	1510	.30*
SBR	1	1700	160	.09	310	.18			SBR	1	1700	180	.11	260	.15
EBL	2	3400	380	.11	250	.07			EBL	2	3400	380	.11	280	.08
EBT	3	5100	340	.07*	1060	.21*			EBT	3	5100	360	.07*	1020	.20*
EBR	1	1700	400	.24	510	.30			EBR	1	1700	440	.26	480	.28
WBL	2	3400	1110	.33*	280	.08*			WBL	2	3400	1080	.32*	290	.09*
WBT	3	5100	1070	.21	460	.09			WBT	3	5100	1050	.21	500	.10
WBR	1	1700	180	.11	40	.02			WBR	1	1700	170	.10	40	.02
Clearance Interval				.05*		.05*			Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				1.04		.89			TOTAL CAPACITY UTILIZATION				1.06		.93

14. Bake & Irvine/Trabuco

2015 With SBRA Project & LFTM						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	630	.19*	500	.15*
NBT	3	5100	1420	.32	1340	.39
NBR	0	0	210		630	
SBL	2	3400	40	.01	180	.05
SBT	3	5100	1280	.25*	1510	.30*
SBR	1	1700	180	.11	260	.15
EBL	2	3400	380	.11	280	.08
EBT	2.5	6800	360	{.08}* ¹	1020	{.20}* ¹
EBR	1.5		440		480	{.17}
WBL	2	3400	1080	.32*	290	.09*
WBT	4	6800	1050	.15	500	.07
WBR	d	1700	170	.10	40	.02
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.89		.79

15. Lake Forest & Trabuco

2015 No SBRA Project						2015 With SBRA Project								
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	270	.08*	260	.08*		NBL	2	3400	260	.08*	270	.08
NBT	3	5100	880	.17	1100	.22		NBT	3	5100	900	.18	1110	.22*
NBR	1	1700	80	.05	680	.40		NBR	1	1700	70	.04	720	.42
SBL	2	3400	250	.07	340	.10		SBL	2	3400	290	.09	360	.11*
SBT	3	5100	1220	.28*	1080	.25*		SBT	3	5100	1220	.28*	1080	.24
SBR	0	0	210		170			SBR	0	0	210		150	
EBL	2	3400	190	.06	260	.08		EBL	2	3400	170	.05	260	.08
EBT	3	5100	620	.12*	1170	.23*		EBT	3	5100	640	.13*	1120	.22*
EBR	1	1700	440	.26	200	.12		EBR	1	1700	440	.26	200	.12
WBL	2	3400	710	.21*	280	.08*		WBL	2	3400	750	.22*	260	.08*
WBT	3	5100	1060	.21	580	.11		WBT	3	5100	1000	.20	590	.12
WBR	1	1700	380	.22	420	.25		WBR	1	1700	350	.21	430	.25
Right Turn Adjustment		EBR	.08*		NBR	.11*		Right Turn Adjustment		EBR	.07*		NBR	.14*
Clearance Interval			.05*			.05*		Clearance Interval			.05*			.05*
TOTAL CAPACITY UTILIZATION			.82		.80		TOTAL CAPACITY UTILIZATION			.83		.82		

16. Ridge Route & Trabuco

2015 No SBRA Project						2015 With SBRA Project								
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	1	1700	200	.12*	210	.12*		NBL	1	1700	180	.11*	210	.12*
NBT	0	0	0		0			NBT	0	0	0		0	
NBR	1	1700	90	.05	210	.12		NBR	1	1700	90	.05	230	.14
SBL	0	0	0		0			SBL	0	0	0		0	
SBT	0	0	0		0			SBT	0	0	0		0	
SBR	0	0	0		0			SBR	0	0	0		0	
EBL	0	0	0		0			EBL	0	0	0		0	
EBT	3	5100	660	.13	1920	.38*		EBT	3	5100	690	.14	1900	.37*
EBR	d	1700	170	.10	90	.05		EBR	d	1700	190	.11	110	.06
WBL	1	1700	130	.08	100	.06*		WBL	1	1700	120	.07	100	.06*
WBT	3	5100	1700	.33*	970	.19		WBT	3	5100	1670	.33*	970	.19
WBR	0	0	0		0			WBR	0	0	0		0	
Clearance Interval			.05*			.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.50		.61		TOTAL CAPACITY UTILIZATION			.49		.60		

17. El Toro & Trabuco

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	300	.09*	420	.12	NBL	2	3400	290	.09*	420	.12
NBT	3	5100	1050	.21	1440	.28*	NBT	3	5100	1070	.21	1460	.29*
NBR	1	1700	130	.08	540	.32	NBR	1	1700	120	.07	580	.34
SBL	2	3400	290	.09	270	.08*	SBL	2	3400	290	.09	270	.08*
SBT	3	5100	1470	.29*	890	.17	SBT	3	5100	1500	.29*	920	.18
SBR	1	1700	400	.24	130	.08	SBR	1	1700	390	.23	120	.07
EBL	2	3400	170	.05*	560	.16	EBL	2	3400	180	.05*	590	.17
EBT	3	5100	320	.09	1120	.28*	EBT	3	5100	330	.10	1060	.27*
EBR	0	0	230	.14	310		EBR	0	0	250	.15	320	
WBL	2	3400	260	.08	190	.06*	WBL	2	3400	260	.08	190	.06*
WBT	3	5100	1020	.20*	500	.10	WBT	3	5100	1000	.20*	510	.10
WBR	1	1700	220	.13	150	.09	WBR	1	1700	220	.13	150	.09
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
Note: Assumes Right-Turn Overlap for SBR NBR						Note: Assumes Right-Turn Overlap for SBR NBR							
TOTAL CAPACITY UTILIZATION			.68		.75		TOTAL CAPACITY UTILIZATION			.68		.75	

18. Bake & Toledo

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	180	.11*	20	.01	NBL	1	1700	200	.12*	20	.01
NBT	3	5100	1980	.39	2030	.40*	NBT	3	5100	1980	.39	2130	.42*
NBR	d	1700	20	.01	290	.17	NBR	d	1700	20	.01	300	.18
SBL	1	1700	70	.04	110	.06*	SBL	1	1700	70	.04	100	.06*
SBT	3	5100	2050	.40*	2080	.41	SBT	3	5100	2230	.44*	2110	.41
SBR	d	1700	370	.22	60	.04	SBR	d	1700	330	.19	50	.03
EBL	2	3400	110	.03	170	.05	EBL	2	3400	100	.03	160	.05
EBT	2	3400	10	.00*	310	.09*	EBT	2	3400	10	.00*	300	.09*
EBR	1	1700	10	.01	190	.11	EBR	1	1700	10	.01	190	.11
WBL	1	1700	310	.18*	30	.02*	WBL	1	1700	280	.16*	30	.02*
WBT	2	3400	280	.11	30	.02	WBT	2	3400	290	.11	40	.02
WBR	0	0	80		80	.05	WBR	0	0	80		80	.05
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.74		.62		TOTAL CAPACITY UTILIZATION			.77		.64	

19. Lake Forest & Toledo

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	70	.04*	60	.04	NBL	1	1700	70	.04*	50	.03
NBT	3	5100	820	.16	1460	.29*	NBT	3	5100	820	.16	1520	.30*
NBR	d	1700	30	.02	40	.02	NBR	d	1700	40	.02	30	.02
SBL	1	1700	50	.03	50	.03*	SBL	1	1700	60	.04	50	.03*
SBT	3	5100	1680	.33*	1130	.22	SBT	3	5100	1730	.34*	1130	.22
SBR	d	1700	30	.02	70	.04	SBR	d	1700	30	.02	70	.04
EBL	1	1700	20	.01	120	.07*	EBL	1	1700	20	.01	90	.05
EBT	2	3400	100	.05*	160	.07	EBT	2	3400	100	.05*	190	.08*
EBR	0	0	70		80		EBR	0	0	80		80	
WBL	1	1700	70	.04*	30	.02	WBL	1	1700	70	.04*	30	.02*
WBT	2	3400	160	.06	70	.03*	WBT	2	3400	150	.05	70	.04
WBR	0	0	30		40		WBR	0	0	30		50	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.51		.47		TOTAL CAPACITY UTILIZATION			.52		.48	

20. Ridge Route & Toledo

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	40	.02	40	.02	NBL	1	1700	40	.02	40	.02
NBT	2	3400	220	.09*	330	.11*	NBT	2	3400	210	.09*	350	.12*
NBR	0	0	90		50		NBR	0	0	90		50	
SBL	1	1700	60	.04*	50	.03*	SBL	1	1700	60	.04*	50	.03*
SBT	2	3400	320	.11	170	.05	SBT	2	3400	310	.11	190	.06
SBR	0	0	50		10		SBR	0	0	80		10	
EBL	1	1700	50	.03	80	.05	EBL	1	1700	50	.03	90	.05
EBT	2	3400	150	.05*	260	.09*	EBT	2	3400	150	.05*	270	.09*
EBR	0	0	30		50		EBR	0	0	30		50	
WBL	1	1700	140	.08*	60	.04*	WBL	1	1700	140	.08*	60	.04*
WBT	2	3400	180	.07	60	.04	WBT	2	3400	130	.06	60	.04
WBR	0	0	70		70	.04	WBR	0	0	60		70	.04
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.31		.32		TOTAL CAPACITY UTILIZATION			.31		.33	

21. El Toro & Toledo

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	130	.08*	100	.06	NBL	1	1700	120	.07*	120	.07
NBT	3	5100	1500	.29	2170	.43*	NBT	3	5100	1510	.30	2240	.44*
NBR	d	1700	10	.01	20	.01	NBR	d	1700	10	.01	20	.01
SBL	1	1700	10	.01	10	.01*	SBL	1	1700	10	.01	10	.01*
SBT	3	5100	1990	.39*	1280	.25	SBT	3	5100	2060	.40*	1310	.26
SBR	d	1700	150	.09	60	.04	SBR	d	1700	110	.06	60	.04
EBL	1.5		50		160		EBL	1.5		50		160	
EBT	0.5	3400	10	.02*	40	.06*	EBT	0.5	3400	10	.02*	70	.07*
EBR	1	1700	110	.06	140	.08	EBR	1	1700	120	.07	130	.08
WBL	0	0	20		10		WBL	0	0	20		10	
WBT	1	1700	20	.03*	10	.02*	WBT	1	1700	20	.03*	10	.02*
WBR	0	0	10		10		WBR	0	0	10		10	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
Note: Assumes E/W Split Phasing						Note: Assumes E/W Split Phasing							
TOTAL CAPACITY UTILIZATION			.57		.57		TOTAL CAPACITY UTILIZATION			.57		.59	

22. Bake & Jeronimo

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	390	.23*	20	.01	NBL	1	1700	390	.23*	20	.01
NBT	3	5100	1800	.35	2170	.43*	NBT	3	5100	1810	.35	2280	.45*
NBR	d	1700	40	.02	390	.23	NBR	d	1700	30	.02	390	.23
SBL	1	1700	80	.05	70	.04*	SBL	1	1700	90	.05	70	.04*
SBT	3	5100	2100	.41*	2130	.42	SBT	3	5100	2250	.44*	2150	.42
SBR	d	1700	80	.05	10	.01	SBR	d	1700	80	.05	10	.01
EBL	2	3400	10	.00	70	.02	EBL	2	3400	10	.00	60	.02
EBT	2	3400	60	.02	600	.18*	EBT	2	3400	60	.02	610	.18*
EBR	1	1700	30	.02	250	.15	EBR	1	1700	30	.02	240	.14
WBL	1	1700	270	.16	130	.08*	WBL	1	1700	260	.15	130	.08*
WBT	2	3400	580	.19*	120	.06	WBT	2	3400	560	.19*	110	.06
WBR	0	0	70		70		WBR	0	0	80		80	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.88		.78		TOTAL CAPACITY UTILIZATION			.91		.80	

22. Bake & Jeronimo

2015 With SBRA Project & LFTM						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	390	.11*	20	.01
NBT	3	5100	1810	.35	2280	.45*
NBR	d	1700	30	.02	390	.23
SBL	1	1700	90	.05	70	.04*
SBT	3	5100	2250	.44*	2150	.42
SBR	d	1700	80	.05	10	.01
EBL	2	3400	10	.00	60	.02
EBT	2	3400	60	.02	610	.18*
EBR	1	1700	30	.02	240	.14
WBL	1	1700	260	.15	130	.08*
WBT	2	3400	560	.19*	110	.06
WBR	0	0	80		80	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.79		.80

23. Lake Forest & Jeronimo

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	90	.05*	60	.04	NBL	1	1700	100	.06*	70	.04
NBT	3	5100	800	.16	1630	.32*	NBT	3	5100	810	.16	1650	.32*
NBR	1	1700	140	.08	190	.11	NBR	1	1700	100	.06	210	.12
SBL	1	1700	220	.13	120	.07*	SBL	1	1700	230	.14	120	.07*
SBT	3	5100	1370	.27*	1050	.21	SBT	3	5100	1440	.28*	1060	.21
SBR	1	1700	220	.13	190	.11	SBR	1	1700	190	.11	190	.11
EBL	1	1700	80	.05	150	.09	EBL	1	1700	80	.05	170	.10
EBT	2	3400	310	.13*	650	.21*	EBT	2	3400	320	.13*	650	.21*
EBR	0	0	120		60		EBR	0	0	120		60	
WBL	1	1700	320	.19*	160	.09*	WBL	1	1700	310	.18*	160	.09*
WBT	2	3400	580	.24	260	.10	WBT	2	3400	590	.25	270	.11
WBR	0	0	250		90		WBR	0	0	250		90	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.69		.74		TOTAL CAPACITY UTILIZATION			.70		.74	

24. Ridge Route & Jeronimo

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	170	.10*	60	.04	NBL	1	1700	170	.10*	60	.04
NBT	2	3400	270	.08	280	.08*	NBT	2	3400	260	.08	320	.09*
NBR	d	1700	70	.04	130	.08	NBR	d	1700	70	.04	120	.07
SBL	1	1700	10	.01	70	.04*	SBL	1	1700	20	.01	90	.05*
SBT	2	3400	240	.07*	200	.06	SBT	2	3400	230	.07*	200	.06
SBR	d	1700	20	.01	40	.02	SBR	d	1700	20	.01	40	.02
EBL	1	1700	130	.08*	70	.04	EBL	1	1700	130	.08	60	.04
EBT	2	3400	620	.21	980	.31*	EBT	2	3400	640	.21*	980	.31*
EBR	0	0	90		60		EBR	0	0	90		70	
WBL	1	1700	10	.01	80	.05*	WBL	1	1700	10	.01*	80	.05*
WBT	2	3400	430	.14*	340	.13	WBT	2	3400	410	.13	350	.13
WBR	0	0	40		100		WBR	0	0	40		100	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.44		.53		TOTAL CAPACITY UTILIZATION			.44		.55	

25. El Toro & Jeronimo

2015 No SBRA Project						2015 With SBRA Project					
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR
NBL	1	1700	90	.05	.04	NBL	1	1700	80	.05	.04
NBT	3	5100	1390	.27*	.34*	NBT	3	5100	1380	.27*	.35*
NBR	1	1700	220	.13	.08	NBR	1	1700	220	.13	.08
SBL	1	1700	270	.16*	.09*	SBL	1	1700	280	.16*	.10*
SBT	3	5100	1660	.33	.18	SBT	3	5100	1740	.34	.19
SBR	d	1700	170	.10	.19	SBR	d	1700	170	.10	.19
EBL	1	1700	120	.07*	.14*	EBL	1	1700	120	.07*	.14*
EBT	2	3400	360	.13	.18	EBT	2	3400	370	.13	.18
EBR	0	0	70		150	EBR	0	0	70		150
WBL	2	3400	270	.08	.06	WBL	2	3400	270	.08	.06
WBT	2	3400	660	.19*	.15*	WBT	2	3400	650	.19*	.14*
WBR	1	1700	80	.05	.21	WBR	1	1700	80	.05	.22
Clearance Interval			.05*		.05*	Clearance Interval			.05*		.05*
Note: Assumes Right-Turn Overlap for NBR						Note: Assumes Right-Turn Overlap for NBR					
TOTAL CAPACITY UTILIZATION			.74		.77	TOTAL CAPACITY UTILIZATION			.74		.78

26. Los Alisos & Jeronimo

2015 No SBRA Project						2015 With SBRA Project					
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR
NBL	1	1700	160	.09*	.12	NBL	1	1700	160	.09*	.11
NBT	3	5100	650	.13	.29*	NBT	3	5100	680	.13	.29*
NBR	1	1700	260	.15	.19	NBR	1	1700	240	.14	.21
SBL	1	1700	280	.16	.15*	SBL	1	1700	300	.18	.15*
SBT	3	5100	1260	.25*	.20	SBT	3	5100	1350	.26*	.19
SBR	1	1700	460	.27	.07	SBR	1	1700	430	.25	.08
EBL	2	3400	160	.05*	.11	EBL	2	3400	160	.05*	.11
EBT	2	3400	590	.17	.23*	EBT	2	3400	600	.18	.23*
EBR	1	1700	180	.11	.12	EBR	1	1700	190	.11	.12
WBL	2	3400	360	.11	.08*	WBL	2	3400	330	.10	.08*
WBT	2	3400	820	.24*	.11	WBT	2	3400	840	.25*	.12
WBR	1	1700	230	.14	.15	WBR	1	1700	230	.14	.15
Clearance Interval			.05*		.05*	Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.68		.80	TOTAL CAPACITY UTILIZATION			.70		.80

27. Lake Forest & Muirlands

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	40	.01*	70	.02	NBL	2	3400	40	.01*	70	.02
NBT	3	5100	740	.15	1500	.29*	NBT	3	5100	700	.14	1530	.30*
NBR	1	1700	90	.05	280	.16	NBR	1	1700	100	.06	270	.16
SBL	2	3400	80	.02	150	.04*	SBL	2	3400	80	.02	150	.04*
SBT	3	5100	1680	.33*	1020	.20	SBT	3	5100	1740	.34*	1030	.20
SBR	1	1700	200	.12	100	.06	SBR	1	1700	190	.11	90	.05
EBL	2	3400	70	.02*	320	.09	EBL	2	3400	70	.02*	360	.11
EBT	2	3400	230	.07	1170	.34*	EBT	2	3400	250	.07	1170	.34*
EBR	1	1700	30	.02	180	.11	EBR	1	1700	40	.02	180	.11
WBL	2	3400	280	.08	390	.11*	WBL	2	3400	280	.08	390	.11*
WBT	2	3400	750	.22*	230	.07	WBT	2	3400	770	.23*	230	.07
WBR	1	1700	120	.07	80	.05	WBR	1	1700	130	.08	80	.05
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
Note: Assumes Right-Turn Overlap for EBR						Note: Assumes Right-Turn Overlap for EBR							
TOTAL CAPACITY UTILIZATION			.63		.83		TOTAL CAPACITY UTILIZATION			.65		.84	

28. Ridge Route & Muirlands

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	1	1700	90	.05*	100	.06	NBL	1	1700	90	.05*	110	.06
NBT	2	3400	300	.09	300	.09*	NBT	2	3400	300	.09	320	.09*
NBR	d	1700	120	.07	200	.12	NBR	d	1700	120	.07	200	.12
SBL	1	1700	20	.01	100	.06*	SBL	1	1700	20	.01	100	.06*
SBT	2	3400	250	.07*	210	.06	SBT	2	3400	220	.06*	190	.06
SBR	d	1700	70	.04	60	.04	SBR	d	1700	100	.06	70	.04
EBL	1	1700	40	.02*	70	.04	EBL	1	1700	30	.02*	80	.05
EBT	2	3400	410	.12	1340	.39*	EBT	2	3400	420	.12	1330	.39*
EBR	1	1700	50	.03	70	.04	EBR	1	1700	50	.03	70	.04
WBL	1	1700	100	.06	100	.06*	WBL	1	1700	120	.07	100	.06*
WBT	2	3400	940	.28*	610	.18	WBT	2	3400	920	.27*	610	.18
WBR	1	1700	60	.04	100	.06	WBR	1	1700	70	.04	90	.05
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.47		.65		TOTAL CAPACITY UTILIZATION			.45		.65	

29. El Toro & Muirlands

2015 No SBRA Project						2015 With SBRA Project									
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR				
NBL	2	3400	90	.03	.220	.06			NBL	2	3400	90	.03	.220	.06
NBT	3	5100	1500	.29*	.1650	.32*			NBT	3	5100	1490	.29*	.1690	.33*
NBR	1	1700	80	.05	.400	.24			NBR	1	1700	70	.04	.390	.23
SBL	2	3400	230	.07*	.150	.04*			SBL	2	3400	230	.07*	.150	.04*
SBT	3	5100	1540	.30	.1080	.21			SBT	3	5100	1650	.32	.1110	.22
SBR	1	1700	250	.15	.70	.04			SBR	1	1700	220	.13	.60	.04
EBL	2	3400	90	.03*	.110	.03			EBL	2	3400	90	.03*	.110	.03
EBT	2	3400	310	.09	.950	.28*			EBT	2	3400	310	.09	.930	.27*
EBR	1	1700	150	.09	.330	.19			EBR	1	1700	160	.09	.330	.19
WBL	2	3400	290	.09	.360	.11*			WBL	2	3400	270	.08	.370	.11*
WBT	2	3400	680	.20*	.500	.15			WBT	2	3400	710	.21*	.510	.15
WBR	1	1700	120	.07	.190	.11			WBR	1	1700	110	.06	.200	.12
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*			
TOTAL CAPACITY UTILIZATION			.64		.80		TOTAL CAPACITY UTILIZATION			.65		.80			

30. Los Alisos & Muirlands

2015 No SBRA Project						2015 With SBRA Project									
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR				
NBL	1	1700	250	.15*	.180	.11			NBL	1	1700	260	.15*	.190	.11
NBT	3	5100	690	.14	.1640	.32*			NBT	3	5100	700	.14	.1660	.33*
NBR	1	1700	90	.05	.210	.12			NBR	1	1700	90	.05	.220	.13
SBL	1	1700	310	.18	.290	.17*			SBL	1	1700	330	.19	.280	.16*
SBT	3	5100	1270	.25*	.850	.17			SBT	3	5100	1320	.26*	.840	.16
SBR	d	1700	210	.12	.320	.19			SBR	d	1700	210	.12	.300	.18
EBL	1	1700	220	.13*	.420	.25*			EBL	1	1700	220	.13*	.420	.25*
EBT	2	3400	490	.18	.730	.27			EBT	2	3400	480	.18	.700	.26
EBR	0	0	110		.190				EBR	0	0	120		.200	
WBL	1	1700	190	.11	.130	.08			WBL	1	1700	210	.12	.120	.07
WBT	2	3400	1030	.30*	.470	.14*			WBT	2	3400	1000	.29*	.480	.14*
WBR	1	1700	160	.09	.320	.19			WBR	1	1700	160	.09	.320	.19
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*			
TOTAL CAPACITY UTILIZATION			.88		.93		TOTAL CAPACITY UTILIZATION			.88		.93			

31. Lake Forest & Rockfield

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	560	.16*	590	.17	NBL	2	3400	570	.17*	600	.18
NBT	3	5100	1120	.22	1710	.34*	NBT	3	5100	1070	.21	1720	.34*
NBR	1	1700	190	.11	480	.28	NBR	1	1700	190	.11	480	.28
SBL	2	3400	120	.04	140	.04*	SBL	2	3400	130	.04	130	.04*
SBT	4	6800	1850	.28*	1190	.19	SBT	4	6800	1900	.29*	1190	.19
SBR	0	0	80		120		SBR	0	0	90		130	
EBL	2	3400	60	.02*	190	.06	EBL	2	3400	70	.02*	190	.06
EBT	2	3400	160	.05	680	.20*	EBT	2	3400	140	.04	680	.20*
EBR	2	3400	200	.06	300	.09	EBR	2	3400	200	.06	290	.09
WBL	2	3400	480	.14	440	.13*	WBL	2	3400	440	.13	440	.13*
WBT	2	3400	570	.17*	210	.06	WBT	2	3400	560	.16*	210	.06
WBR	1	1700	110	.06	160	.09	WBR	1	1700	100	.06	170	.10
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.68		.76		TOTAL CAPACITY UTILIZATION			.69		.76	

32. Ridge Route & Rockfield

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0.5		70		30		NBL	0.5		70		30	
NBT	1.5	3400	40	.04*	20	.02*	NBT	1.5	3400	40	.04*	20	.02*
NBR	0		40		10		NBR	0		40		10	
SBL	0.5		160	.09*	130	.08*	SBL	0.5		150	.09*	130	.08*
SBT	1.5	3400	10	.01	20	.01	SBT	1.5	3400	10	.01	20	.01
SBR	d	1700	330	.19	150	.09	SBR	d	1700	310	.18	150	.09
EBL	1	1700	90	.05*	370	.22	EBL	1	1700	90	.05*	390	.23
EBT	2	3400	200	.06	1300	.40*	EBT	2	3400	190	.06	1270	.39*
EBR	0	0	10		50		EBR	0	0	10		60	
WBL	1	1700	10	.01	20	.01*	WBL	1	1700	10	.01	20	.01*
WBT	2	3400	520	.18*	410	.16	WBT	2	3400	510	.17*	420	.16
WBR	0	0	80		120		WBR	0	0	80		130	
Right Turn Adjustment			SBR	.06*			Right Turn Adjustment			SBR	.05*		
Clearance Interval				.05*		.05*	Clearance Interval				.05*		.05*
Note: Assumes N/S Split Phasing						Note: Assumes N/S Split Phasing							
TOTAL CAPACITY UTILIZATION			.47		.56		TOTAL CAPACITY UTILIZATION			.45		.55	

33. El Toro & Rockfield

2015 No SBRA Project						2015 With SBRA Project									
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR				
NBL	2	3400	210	.06*	310	.09*			NBL	2	3400	210	.06*	320	.09*
NBT	4	6800	1110	.16	1610	.24			NBT	4	6800	1110	.16	1610	.24
NBR	d	1700	40	.02	280	.16			NBR	d	1700	30	.02	360	.21
SBL	2	3400	210	.06	220	.06			SBL	2	3400	180	.05	220	.06
SBT	4	6800	1420	.23*	1500	.23*			SBT	4	6800	1520	.24*	1520	.23*
SBR	0	0	120		60				SBR	0	0	110		70	
EBL	2	3400	160	.05	450	.13			EBL	2	3400	170	.05	480	.14
EBT	2	3400	80	.02*	650	.19*			EBT	2	3400	70	.02*	610	.18*
EBR	f		210		210				EBR			220		220	
WBL	2	3400	500	.15*	270	.08*			WBL	2	3400	520	.15*	280	.08*
WBT	2	3400	150	.04	270	.08			WBT	2	3400	160	.05	270	.08
WBR	1	1700	120	.07	100	.06			WBR	1	1700	110	.06	100	.06
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*			
TOTAL CAPACITY UTILIZATION			.51		.64		TOTAL CAPACITY UTILIZATION			.52		.63			

34. Los Alisos & Rockfield

2015 No SBRA Project						2015 With SBRA Project									
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR				
NBL	1	1700	230	.14*	300	.18*			NBL	1	1700	220	.13*	310	.18*
NBT	2	3400	870	.26	1440	.43			NBT	2	3400	870	.26	1450	.43
NBR	0	0	10		10				NBR	0	0	10		10	
SBL	1	1700	10	.01	20	.01			SBL	1	1700	10	.01	20	.01
SBT	2	3400	1000	.46*	940	.34*			SBT	2	3400	1010	.47*	930	.34*
SBR	0	0	550		230				SBR	0	0	590		240	
EBL	1.5		220		560				EBL	1.5		230		590	
EBT	0.5	3400	90	.09*	40	.18*			EBT	0.5	3400	90	.09*	40	.19*
EBR	1	1700	270	.16	300	.18			EBR	1	1700	250	.15	300	.18
WBL	0	0	20		20				WBL	0	0	20		20	
WBT	1	1700	110	.08*	70	.05*			WBT	1	1700	100	.07*	70	.05*
WBR	d	1700	40	.02	20	.01			WBR	d	1700	50	.03	20	.01
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*			
Note: Assumes E/W Split Phasing							Note: Assumes E/W Split Phasing								
TOTAL CAPACITY UTILIZATION			.82		.80		TOTAL CAPACITY UTILIZATION			.81		.81			

35. Lake Forest & I-5 NB

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0	0	0		0		NBL	0	0	0		0	
NBT	3	5100	1710	.34*	2390	.47*	NBT	3	5100	1680	.33*	2410	.47*
NBR	0	0	0		0		NBR	0	0	0		0	
SBL	0	0	0		0		SBL	0	0	0		0	
SBT	3	5100	1070	.21	1380	.27	SBT	3	5100	1060	.21	1350	.26
SBR	f		1450		1010		SBR	f		1470		1020	
EBL	0	0	0		0		EBL	0	0	0		0	
EBT	0	0	0		0		EBT	0	0	0		0	
EBR	0	0	0		0		EBR	0	0	0		0	
WBL	2	3400	510	.15*	200	.06*	WBL	2	3400	510	.15*	190	.06*
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	2	3400	630	.19	420	.12	WBR	2	3400	630	.19	420	.12
Right Turn Adjustment		WBR	.04*		WBR	.06*	Right Turn Adjustment		WBR	.04*		WBR	.06*
Clearance Interval			.05*			.05*	Clearance Interval			.05*			.05*
TOTAL CAPACITY UTILIZATION			.58		.64		TOTAL CAPACITY UTILIZATION			.57		.64	

36. Lake Forest & I-5/Carlota

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0	0	0		0		NBL	0	0	0		0	
NBT	4	6800	600	.09*	1080	.17*	NBT	4	6800	620	.10*	1080	.17*
NBR	0	0	40		70		NBR	0	0	40		80	
SBL	2	3400	330	.10*	380	.11*	SBL	2	3400	330	.10*	370	.11*
SBT	3	5100	790	.15	650	.13	SBT	3	5100	800	.16	640	.13
SBR	f		550		560		SBR	f		520		560	
EBL	2.5		990		1850		EBL	2.5		960		1850	
EBT	1.5	6800	440	.21*	890	.40*	EBT	1.5	6800	440	.21*	890	.40*
EBR	1	1700	580	.34	320	.19	EBR	1	1700	570	.34	350	.21
WBL	1	1700	130	.08*	140	.08*	WBL	1	1700	130	.08*	140	.08*
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	2	3400	170	.05	390	.11	WBR	2	3400	170	.05	390	.11
Right Turn Adjustment		EBR	.10*				Right Turn Adjustment		EBR	.10*			
Clearance Interval			.05*				Clearance Interval			.05*			.05*
Note: Assumes E/W Split Phasing							Note: Assumes E/W Split Phasing						
TOTAL CAPACITY UTILIZATION			.63		.81		TOTAL CAPACITY UTILIZATION			.64		.81	

37. Paseo De Valencia & Carlota

2015 No SBRA Project						2015 With SBRA Project								
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	2	3400	160	.05*	220	.06		NBL	2	3400	160	.05*	210	.06
NBT	1	1700	20	.01	100	.06*		NBT	1	1700	20	.01	100	.06*
NBR	1	1700	40	.02	270	.16		NBR	1	1700	40	.02	270	.16
SBL	2	3400	900	.26*	990	.29*		SBL	2	3400	900	.26*	1020	.30*
SBT	2	3400	600	.18	470	.15		SBT	2	3400	590	.18	470	.15
SBR	0	0	10		30			SBR	0	0	10		30	
EBL	2	3400	80	.02*	430	.13*		EBL	2	3400	90	.03*	430	.13*
EBT	2	3400	230	.07	680	.20		EBT	2	3400	230	.07	700	.21
EBR	1	1700	110	.06	680	.40		EBR	1	1700	110	.06	680	.40
WBL	1	1700	30	.02	40	.02		WBL	1	1700	30	.02	40	.02
WBT	2	3400	470	.14*	360	.11*		WBT	2	3400	470	.14*	370	.11*
WBR	1	1700	510	.30	520	.31		WBR	1	1700	520	.31	520	.31
Right Turn Adjustment				Multi		.21*		Right Turn Adjustment				Multi	.22*	
Clearance Interval			.05*			.05*		Clearance Interval			.05*		.05*	
Note: Assumes N/S Split Phasing							Note: Assumes N/S Split Phasing							
TOTAL CAPACITY UTILIZATION			.52		.85		TOTAL CAPACITY UTILIZATION			.53		.87		

38. El Toro & Bridger/I-5 NB

2015 No SBRA Project						2015 With SBRA Project								
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	1	1700	60	.04*	160	.09*		NBL	1	1700	60	.04*	160	.09*
NBT	2.5	6800	1060	{.25}	1420	{.32}		NBT	2.5	6800	1040	{.24}	1490	{.33}
NBR	1.5		910		1110			NBR	1.5		900		1100	
SBL	0	0	0		0			SBL	0	0	0		0	
SBT	5	8500	2290	.28*	1970	.24*		SBT	5	8500	2440	.30*	2000	.25*
SBR	0	0	80		90			SBR	0	0	80		90	
EBL	1	1700	40	.02*	110	.06*		EBL	1	1700	40	.02*	110	.06*
EBT	1	1700	10	.01	10	.01		EBT	1	1700	10	.01	10	.01
EBR	1	1700	150	.09	220	.13		EBR	1	1700	150	.09	220	.13
WBL	1.5		530		470			WBL	1.5		520		470	
WBT	0	5100	80	.22*	60	.23*		WBT	0	5100	80	{.21}* [*]	60	.23*
WBR	1.5		610		680			WBR	1.5		620		690	
Right Turn Adjustment		EBR		.03*				Right Turn Adjustment		EBR		.03*		
Clearance Interval				.05*		.05*		Clearance Interval				.05*		.05*
Note: Assumes Right-Turn Overlap for EBR							Note: Assumes Right-Turn Overlap for EBR							
TOTAL CAPACITY UTILIZATION			.64		.67		TOTAL CAPACITY UTILIZATION			.65		.68		

39. El Toro & Avd Carlota

2015 No SBRA Project						2015 With SBRA Project					
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR
NBL	0	0	0		0	NBL	0	0	0		0
NBT	4	6800	870	.13	1600	NBT	4	6800	860	.13	1600
NBR	d	1700	10	.01	50	NBR	d	1700	10	.01	50
SBL	2	3400	100	.03	320	SBL	2	3400	100	.03	320
SBT	3	5100	970	.19*	770	SBT	3	5100	980	.19*	780
SBR	1	1700	800	.47	710	SBR	1	1700	810	.48	710
EBL	3	5100	850	.17*	870	EBL	3	5100	860	.17*	920
EBT	2	3400	250	.07	830	EBT	2	3400	240	.07	820
EBR	1	1700	160	.09	140	EBR	1	1700	160	.09	140
WBL	0	0	80		40	WBL	0	0	100		40
WBT	1	1700	130	.12*	90	WBT	1	1700	130	.14*	90
WBR	2	3400	250	.07	620	WBR	2	3400	240	.07	620
Right Turn Adjustment		SBR	.11*		WBR	.01*	Right Turn Adjustment		SBR	.12*	
Clearance Interval			.05*			.05*	Clearance Interval			.05*	
Note: Assumes E/W Split Phasing			Note: Assumes E/W Split Phasing			Note: Assumes Right-Turn Overlap for SBR WBR			Note: Assumes Right-Turn Overlap for SBR WBR		
TOTAL CAPACITY UTILIZATION			.64			TOTAL CAPACITY UTILIZATION			.67		

40. Portola & Rancho

2015 No SBRA Project						2015 With SBRA Project					
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR
NBL	2	3400	860	.25*	420	NBL	2	3400	870	.26*	430
NBT	4	6800	1320	.19	1590	NBT	4	6800	1290	.19	1590
NBR	0	0	0		0	NBR	0	0	0		0
SBL	0	0	0		0	SBL	0	0	0		0
SBT	4	6800	810	.12*	1500	SBT	4	6800	830	.12*	1430
SBR	d	1700	120	.07	10	SBR	d	1700	110	.06	20
EBL	1.5		60	.02*	150	EBL	1.5		50	.01*	100
EBT	0	5100	0		0	EBT	0	5100	0		0
EBR	1.5		260		770	EBR	1.5		280		810
WBL	0	0	0		0	WBL	0	0	0		0
WBT	0	0	0		0	WBT	0	0	0		0
WBR	0	0	0		0	WBR	0	0	0		0
Right Turn Adjustment				EBR	.05*	Right Turn Adjustment			EBR	.08*	
Clearance Interval			.05*		.05*	Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.44			TOTAL CAPACITY UTILIZATION			.44		

41. Alton & Towne Centre Dr

2015 No SBRA Project						2015 With SBRA Project					
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR
NBL	2	3400	140	.04*	.03	NBL	2	3400	140	.04*	.04
NBT	3	5100	670	.13	.29*	NBT	3	5100	820	.16	.30*
NBR	0	0	0		0	NBR	1	1700	230	.14	.14
SBL	0	0	0		0	SBL	2	3400	120	.04	.01*
SBT	3	5100	1570	.31*	.19	SBT	3	5100	1580	.31*	.21
SBR	1	1700	100	.06	.04	SBR	1	1700	60	.04	.04
EBL	1	1700	30	.02*	.07*	EBL	1	1700	30	.02	.05
EBT	0	0	0		0	EBT	1	1700	20	.01*	.03*
EBR	1	1700	100	.06	.08	EBR	1	1700	100	.06	.08
WBL	0	0	0		0	WBL	1	1700	290	.17*	.16*
WBT	0	0	0		0	WBT	1	1700	50	.03	.02
WBR	0	0	0		0	WBR	1	1700	20	.01	.07
Right Turn Adjustment		EBR	.01*			Right Turn Adjustment		EBR	.02*		
Clearance Interval			.05*		.05*	Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.43		.41	TOTAL CAPACITY UTILIZATION			.60		.55

42. Alton & Commercentre

2015 No SBRA Project						2015 With SBRA Project					
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR	AM VOL	PK V/C	HOUR
NBL	0	0	0		0	NBL	0	0	0		0
NBT	3	5100	750	.15	.28*	NBT	3	5100	940	.18	.39*
NBR	d	1700	510	.30	.20	NBR	d	1700	360	.21	.15
SBL	1	1700	120	.07	.07*	SBL	1	1700	150	.09	.06*
SBT	3	5100	1550	.30*	.20	SBT	3	5100	2230	.44*	.24
SBR	0	0	0		0	SBR	0	0	0		0
EBL	0	0	0		0	EBL	0	0	0		0
EBT	0	0	0		0	EBT	0	0	0		0
EBR	0	0	0		0	EBR	0	0	0		0
WBL	1.5		290	.09*	.18*	WBL	1.5		140	.04*	.14*
WBT	0	5100	0		0	WBT	0	5100	0		0
WBR	1.5		70		.08	WBR	1.5		50		.09
Clearance Interval			.05*		.05*	Clearance Interval			.05*		.05*
TOTAL CAPACITY UTILIZATION			.44		.58	TOTAL CAPACITY UTILIZATION			.53		.64

56. Bake & Dimension Dr

2015 No SBRA Project						2015 With SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0	0	0		0		NBL	1	1700	10	.01*	50	.03
NBT	2	3400	980	.29	1580	.46*	NBT	2	3400	810	.24	1490	.44*
NBR	d	1700	180	.11	100	.06	NBR	d	1700	150	.09	70	.04
SBL	1	1700	200	.12	150	.09*	SBL	1	1700	260	.15	150	.09*
SBT	2	3400	1550	.46*	1110	.33	SBT	2	3400	1390	.42*	1000	.32
SBR	0	0	0		0		SBR	0	0	50		100	
EBL	0	0	0		0		EBL	1	1700	120	.07	60	.04
EBT	0	0	0		0		EBT	1	1700	70	.08*	40	.04*
EBR	0	0	0		0		EBR	0	0	70		30	
WBL	2	3400	100	.03*	300	.09*	WBL	1	1700	80	.05*	270	.16*
WBT	0	0	0		0		WBT	1	1700	20	.01	60	.04
WBR	1	1700	80	.05	170	.10	WBR	1	1700	90	.05	240	.14
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.54		.69		TOTAL CAPACITY UTILIZATION			.61		.78	

DRAFT

Existing

1. Alton Pkwy at Portola Pkwy

Existing				Existing With Alton						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	1	1700	22 .01	117 .07		NBL	1	1700	38 .02*	175 .10*
NBT	2	3400	31 .01*	104 .03*		NBT	2	3400	60 .02	209 .06
NBR	f		92	182		NBR			251	441
SBL	1	1700	271 .16*	135 .08*		SBL	1	1700	80 .05	68 .04
SBT	2	3400	147 .04	42 .01		SBT	2	3400	337 .10*	109 .03*
SBR	d	1700	3 .00	5 .00		SBR	d	1700	3 .00	5 .00
EBL	2	3400	4 .00	4 .00		EBL	2	3400	4 .00	4 .00
EBT	2	3400	363 .11*	184 .05*		EBT	2	3400	273 .08*	156 .05*
EBR	f		62	35		EBR	f		152	64
WBL	2	3400	142 .04*	99 .03*		WBL	2	3400	409 .12*	259 .08*
WBT	3	5100	108 .02	264 .05		WBT	3	5100	96 .02	212 .04
WBR	f		97	239		WBR	f		67	113
Clearance Interval				.05*	Clearance Interval				.05*	
TOTAL CAPACITY UTILIZATION				.37	TOTAL CAPACITY UTILIZATION				.31	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	1	1700	45 .03*	177 .10*		
NBT	2	3400	65 .02	254 .07		
NBR	f		350	497		
SBL	1	1700	57 .03	52 .03		
SBT	2	3400	364 .11*	126 .04*		
SBR	d	1700	3 .00	5 .00		
EBL	2	3400	4 .00	4 .00		
EBT	2	3400	258 .08*	146 .04*		
EBR	f		166	73		
WBL	2	3400	457 .13*	372 .11*		
WBT	3	5100	89 .02	201 .04		
WBR	f		68	95		
Clearance Interval				.05*	.05*	
TOTAL CAPACITY UTILIZATION				.40	.34	

2. Bake Pkwy at Portola Pkwy

Existing				Existing With Alton						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	1	1700	79 .05*	271 .16		NBL	1	1700	14 .01	111 .07
NBT	1.5	5100	162 {.05}	278 {.10}* 449		NBT	1.5	5100	147 {.04}* 244	266 {.11}* 502
NBR	1.5		256			SBL	1	1700	173 .10*	272 .16*
SBL	1	1700	178 .10	276 .16*		SBT	2	3400	387 .11	233 .07
SBT	2	3400	412 .12*	250 .07		SBR	d	1700	283 .17	134 .08
SBR	d	1700	158 .09	98 .06		EBL	1	1700	188 .11	232 .14*
EBL	1	1700	154 .09	171 .10*		EBT	3	5100	327 .06*	746 .15
EBT	3	5100	291 .06*	607 .12		EBR	d	1700	29 .02	10 .01
EBR	d	1700	254 .15	107 .06		WBL	2	3400	811 .24*	383 .11
WBL	2	3400	777 .23*	345 .10		WBT	2	3400	452 .13	639 .19*
WBT	2	3400	298 .09	603 .18*		WBR	d	1700	137 .08	78 .05
WBR	d	1700	137 .08	78 .05		Clearance Interval		.05*	.05*	
Right Turn Adjustment		EBR	.05*			TOTAL CAPACITY UTILIZATION		.49	.65	
Clearance Interval			.05*							
TOTAL CAPACITY UTILIZATION			.56	.59						

Existing With Alton & SBRA Project					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	1	1700	21 .01	109 .06	
NBT	1.5	5100	161 {.05}* 252	274 {.09}* 437	
NBR	1.5				
SBL	1	1700	172 .10*	276 .16*	
SBT	2	3400	388 .11	244 .07	
SBR	d	1700	292 .17	144 .08	
EBL	1	1700	191 .11	252 .15*	
EBT	3	5100	320 .06*	649 .13	
EBR	d	1700	10 .01	12 .01	
WBL	2	3400	792 .23*	388 .11	
WBT	2	3400	386 .11	602 .18*	
WBR	d	1700	118 .07	78 .05	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION			.49	.63	

3. Lake Forest Dr at Portola Pkwy

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	24	.01	63	.04	NBL	1	1700	33	.02	28	.02
NBT	2	3400	104	.03*	117	.03*	NBT	2	3400	53	.02*	92	.03*
NBR	d	1700	154	.09	408	.24	NBR	d	1700	129	.08	401	.24
SBL	1	1700	203	.12*	152	.09*	SBL	1	1700	191	.11*	162	.10*
SBT	2	3400	157	.05	153	.05	SBT	2	3400	77	.02	123	.04
SBR	d	1700	2	.00	7	.00	SBR	d	1700	5	.00	25	.01
EBL	2	3400	14	.00	28	.01	EBL	2	3400	38	.01*	35	.01
EBT	3	5100	390	.08	1024	.20*	EBT	3	5100	415	.08	1181	.23*
EBR	d	1700	39	.02	73	.04	EBR	d	1700	10	.01	79	.05
WBL	2	3400	510	.15	271	.08*	WBL	2	3400	446	.13	245	.07*
WBT	3	5100	1156	.23*	865	.17	WBT	3	5100	1332	.26*	939	.18
WBR	d	1700	237	.14	130	.08	WBR	d	1700	241	.14	97	.06
Right Turn Adjustment Clearance Interval					NBR	.15*	Right Turn Adjustment Clearance Interval			NBR	.16*		
			.05*			.05*				.05*		.05*	
TOTAL CAPACITY UTILIZATION			.43		.60		TOTAL CAPACITY UTILIZATION			.45		.64	

Existing With Alton & SBRA Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	1	1700	3	.00	0
NBT	2	3400	50	.01*	96
NBR	d	1700	123	.07	429
SBL	1	1700	190	.11*	145
SBT	2	3400	71	.02	111
SBR	d	1700	3	.00	31
EBL	2	3400	48	.01*	32
EBT	3	5100	414	.08	1054
EBR	d	1700	8	.00	43
WBL	2	3400	441	.13	264
WBT	3	5100	1257	.25*	915
WBR	d	1700	209	.12	96
Right Turn Adjustment Clearance Interval					NBR
			.05*		.16*
					.05*
TOTAL CAPACITY UTILIZATION			.43		.62

4. Glenn Ranch Rd at Portola Pkwy

5. Portola Pkwy at SR-241 Ramps (East)

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	374	.11	144	.04*		NBL	2	3400	418	.12	187	.06*
NBT	3	5100	1298	.25*	785	.15		NBT	3	5100	1293	.25*	683	.13
NBR	f		26		39			NBR	f		10		5	
SBL	2	3400	151	.04*	447	.13		SBL	2	3400	150	.04*	502	.15
SBT	2	3400	566	.17	1253	.37*		SBT	2	3400	494	.15	1212	.36*
SBR	f		213		166			SBR	f		208		143	
EBL	1	1700	106	.06*	89	.05*		EBL	1	1700	76	.04*	14	.01*
EBT	0	0	0		0			EBT	0	0	0		0	
EBR	f		112		104			EBR	f		126		220	
WBL	2	3400	77	.02	70	.02		WBL	2	3400	10	.00	8	.00
WBT	0	0	0		0			WBT	0	0	0		0	
WBR	f		618		205			WBR	f		569		222	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.40		.51		TOTAL CAPACITY UTILIZATION			.38		.48		

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	2	3400	473	.14*	225	.07*
NBT	3	5100	1191	.23	645	.13
NBR	f		10		5	
SBL	2	3400	140	.04	449	.13
SBT	2	3400	463	.14*	1113	.33*
SBR	f		211		143	
EBL	1	1700	73	.04*	10	.01*
EBT	0	0	0		0	
EBR	f		181		280	
WBL	2	3400	6	.00	8	.00
WBT	0	0	0		0	
WBR	f		537		198	
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.37		.46	

6. Alton Pkwy at SR-241 Ramps

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	9	.01	11	.01		NBL	1	1700	13	.01*	51	.03
NBT	2	3400	4	.00*	15	.00*		NBT	2	3400	447	.13	906	.27*
NBR	f		20		16			NBR			121		619	
SBL	1	1700	126	.07*	98	.06*		SBL	1	1700	127	.07	52	.03*
SBT	2	3400	5	.00	10	.00		SBT	2	3400	934	.27*	664	.20
SBR	f		319		238			SBR	f		2		28	
EBL	2	3400	184	.05*	241	.07*		EBL	2	3400	77	.02	10	.00
EBT	0	0	0		0			EBT	0	0	0		0	
EBR	f		31		5			EBR	f		65		19	
WBL	2	3400	22	.01	8	.00		WBL	2	3400	381	.11*	214	.06*
WBT	0	0	0		0			WBT	0	0	0		0	
WBR	f		138		137			WBR	f		124		139	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.17		.18		TOTAL CAPACITY UTILIZATION			.44		.41		

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	53	.03*	114	.07
NBT	2	3400	642	.19	1097	.32*
NBR	f		218		672	
SBL	1	1700	120	.07	36	.02*
SBT	2	3400	1056	.31*	886	.26
SBR	f		13		28	
EBL	2	3400	75	.02	3	.00
EBT	0	0	0		0	
EBR	f		144		60	
WBL	2	3400	445	.13*	267	.08*
WBT	0	0	0		0	
WBR	f		74		125	
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.52		.47	

7. Lake Forest Dr at SR-241 NB on Ramp

Existing				Existing With Alton						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	2	3400	109 .03*	218 .06		NBL	2	3400	114 .03*	243 .07
NBT	2	3400	602 .18	1035 .30*		NBT	2	3400	513 .15	929 .27*
NBR	0	0	0	0		NBR	0	0	0	0
SBL	0	0	0	0		SBL	0	0	0	0
SBT	2	3400	723 .21*	677 .20		SBT	2	3400	534 .16*	574 .17
SBR	1	1700	90 .05	151 .09		SBR	1	1700	10 .01	109 .06
EBL	0	0	0	0		EBL	0	0	0	0
EBT	0	0	0	0		EBT	0	0	0	0
EBR	0	0	0	0		EBR	0	0	0	0
WBL	0	0	0	0		WBL	0	0	0	0
WBT	0	0	0	0		WBT	0	0	0	0
WBR	0	0	0	0		WBR	0	0	0	0
Clearance Interval			.05*	.05*		Clearance Interval		.05*	.05*	
TOTAL CAPACITY UTILIZATION			.29	.35		TOTAL CAPACITY UTILIZATION		.24	.32	

Existing With Alton & SBRA Project					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	2	3400	114 .03*	172 .05	
NBT	2	3400	480 .14	926 .27*	
NBR	0	0	0	0	
SBL	0	0	0	0	
SBT	2	3400	505 .15*	532 .16	
SBR	1	1700	16 .01	113 .07	
EBL	0	0	0	0	
EBT	0	0	0	0	
EBR	0	0	0	0	
WBL	0	0	0	0	
WBT	0	0	0	0	
WBR	0	0	0	0	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION			.23	.32	

8. Lake Forest Dr at SR-241 SB Off Ramp

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0		NBL	0	0	0		0	
NBT	2	3400	580	.17	1175	.35*	NBT	2	3400	568	.17*	1104	.32*
NBR	0	0	0		0		NBR	0	0	0		0	
SBL	0	0	0		0		SBL	0	0	0		0	
SBT	2	3400	709	.21*	681	.20	SBT	2	3400	520	.15	578	.17
SBR	0	0	0		0		SBR	0	0	0		0	
EBL	2	3400	143	.04*	82	.02*	EBL	2	3400	70	.02*	72	.02*
EBT	0	0	0		0		EBT	0	0	0		0	
EBR	1	1700	245	.14	120	.07	EBR	1	1700	277	.16	140	.08
WBL	0	0	0		0		WBL	0	0	0		0	
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	0	0	0		0		WBR	0	0	0		0	
Right Turn Adjustment Clearance Interval		EBR	.10*				Right Turn Adjustment Clearance Interval	EBR	.12*				
			.05*						.05*			.05*	
TOTAL CAPACITY UTILIZATION			.40				TOTAL CAPACITY UTILIZATION			.36		.39	

Existing With Alton & SBRA Project					
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL
NBL	0	0	0		0
NBT	2	3400	528	.16*	986
NBR	0	0	0		0
SBL	0	0	0		0
SBT	2	3400	491	.14	536
SBR	0	0	0		0
EBL	2	3400	77	.02*	115
EBT	0	0	0		0
EBR	1	1700	183	.11	124
WBL	0	0	0		0
WBT	0	0	0		0
WBR	0	0	0		0
Right Turn Adjustment Clearance Interval		EBR	.07*		
			.05*		
			.05*		
TOTAL CAPACITY UTILIZATION			.30		.37

9. Bake Pkwy at Rancho Pkwy N

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	0	0	0		0		NBL	0	0	0		0	
NBT	2	3400	629	.19	1260	.37*	NBT	2	3400	467	.14	1037	.31*
NBR	d	1700	96	.06	127	.07	NBR	d	1700	165	.10	224	.13
SBL	1	1700	72	.04	129	.08*	SBL	1	1700	105	.06	161	.09*
SBT	2	3400	1693	.50*	810	.24	SBT	2	3400	1452	.43*	591	.17
SBR	0	0	0		0		SBR	0	0	0		0	
EBL	0	0	0		0		EBL	0	0	0		0	
EBT	0	0	0		0		EBT	0	0	0		0	
EBR	0	0	0		0		EBR	0	0	0		0	
WBL	2	3400	111	.03*	141	.04*	WBL	2	3400	185	.05*	197	.06*
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	2	3400	87	.03	124	.04	WBR	2	3400	65	.02	133	.04
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.58		.54		TOTAL CAPACITY UTILIZATION			.53		.51	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	0	0	0		0	
NBT	2	3400	516	.15	973	.29*
NBR	d	1700	233	.14	230	.14
SBL	1	1700	87	.05	131	.08*
SBT	2	3400	1368	.40*	631	.19
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	137	.04*	257	.08*
WBT	0	0	0		0	
WBR	2	3400	53	.02	130	.04
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.49		.50	

10. Lake Forest Dr at Rancho Pkwy

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	99	.06*	145	.09*		NBL	1	1700	66	.04	119	.07
NBT	2	3400	552	.16	746	.22		NBT	2	3400	528	.16*	645	.19*
NBR	d	1700	104	.06	24	.01		NBR	d	1700	263	.15	99	.06
SBL	1	1700	151	.09	79	.05		SBL	1	1700	358	.21*	172	.10*
SBT	2	3400	741	.22*	595	.18*		SBT	2	3400	512	.15	498	.15
SBR	d	1700	101	.06	44	.03		SBR	d	1700	185	.11	53	.03
EBL	1	1700	38	.02	127	.07*		EBL	1	1700	48	.03	173	.10
EBT	1	1700	71	.04*	18	.01		EBT	1	1700	128	.08*	92	.05*
EBR	1	1700	52	.03	129	.08		EBR	1	1700	84	.05	171	.10
WBL	1	1700	6	.00	29	.02		WBL	1	1700	46	.03*	181	.11*
WBT	2	3400	8	.00	65	.02*		WBT	2	3400	50	.01	164	.05
WBR	1	1700	13	.01	70	.04		WBR	1	1700	59	.03	274	.16
Clearance Interval			.05*		.05*		Right Turn Adjustment			WBR		.02*		
TOTAL CAPACITY UTILIZATION			.37		.41		Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.53		.52									

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	74	.04	156	.09
NBT	2	3400	496	.15*	616	.18*
NBR	d	1700	271	.16	106	.06
SBL	1	1700	351	.21*	169	.10*
SBT	2	3400	495	.15	463	.14
SBR	d	1700	86	.05	34	.02
EBL	1	1700	38	.02	103	.06
EBT	1	1700	159	.09*	90	.05*
EBR	1	1700	103	.06	186	.11
WBL	1	1700	45	.03*	178	.10*
WBT	2	3400	49	.01	188	.06
WBR	1	1700	61	.04	255	.15
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.53		.48	

11. Bake Pkwy at Rancho Pkwy S

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	176	.10*	45	.03	NBL	1	1700	176	.10*	45	.03
NBT	2	3400	716	.21	1244	.37*	NBT	2	3400	683	.20	1267	.37*
NBR	0	0	0		0		NBR	0	0	0		0	
SBL	0	0	0		0		SBL	0	0	0		0	
SBT	2	3400	1647	.48*	886	.26	SBT	2	3400	1609	.47*	855	.25
SBR	1	1700	142	.08	67	.04	SBR	1	1700	151	.09	69	.04
EBL	2	3400	11	.00	168	.05*	EBL	2	3400	11	.00	171	.05*
EBT	0	0	0		0		EBT	0	0	0		0	
EBR	1	1700	37	.02	123	.07	EBR	1	1700	37	.02	123	.07
WBL	0	0	0		0		WBL	0	0	0		0	
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	0	0	0		0		WBR	0	0	0		0	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.63		.47		TOTAL CAPACITY UTILIZATION			.62		.47	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	197	.12*	107	.06
NBT	2	3400	705	.21	1130	.33*
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	2	3400	1439	.42*	826	.24
SBR	1	1700	188	.11	199	.12
EBL	2	3400	106	.03*	249	.07*
EBT	0	0	0		0	
EBR	1	1700	128	.08	161	.09
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.62		.45	

12. El Toro Rd at Portola/Santa Margarita Pkwy_(s0

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	326	.19*	238	.14*		NBL	1	1700	337	.20*	220	.13*
NBT	3	5100	154	.03	488	.10		NBT	3	5100	129	.03	431	.08
NBR	f		395		638			NBR			406		575	
SBL	1	1700	23	.01	25	.01		SBL	1	1700	26	.02	25	.01
SBT	3	5100	571	.11*	208	.04*		SBT	3	5100	504	.10*	164	.03*
SBR	1	1700	220	.13	91	.05		SBR	1	1700	232	.14	94	.06
EBL	2	3400	31	.01	179	.05		EBL	2	3400	37	.01	257	.08
EBT	3	5100	576	.11*	1289	.25*		EBT	3	5100	535	.10*	1310	.26*
EBR	1	1700	184	.11	321	.19		EBR	1	1700	159	.09	282	.17
WBL	2	3400	641	.19*	381	.11*		WBL	2	3400	601	.18*	393	.12*
WBT	4	6800	1420	.21	697	.10		WBT	4	6800	1436	.21	652	.10
WBR	d	1700	40	.02	40	.02		WBR	d	1700	45	.03	36	.02
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.65		.59		TOTAL CAPACITY UTILIZATION			.63		.59		

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	329	.19*	203	.12*
NBT	3	5100	119	.02	439	.09
NBR	f		398		571	
SBL	1	1700	32	.02	25	.01
SBT	3	5100	500	.10*	146	.03*
SBR	1	1700	204	.12	115	.07
EBL	2	3400	37	.01	243	.07
EBT	3	5100	567	.11*	1286	.25*
EBR	1	1700	153	.09	284	.17
WBL	2	3400	583	.17*	402	.12*
WBT	4	6800	1422	.21	652	.10
WBR	d	1700	45	.03	37	.02
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.62		.57	

13. Bake Pkwy at Commercentre Dr

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	69	.04*	4	.00		NBL	1	1700	18	.01	10	.01
NBT	2	3400	1194	.35	1613	.47*		NBT	2	3400	1050	.31*	1299	.38*
NBR	d	1700	695	.41	177	.10		NBR	d	1700	654	.38	91	.05
SBL	1	1700	27	.02	9	.01*		SBL	1	1700	27	.02*	9	.01*
SBT	2	3400	1499	.44*	1515	.45		SBT	2	3400	1004	.30	1144	.34
SBR	d	1700	42	.02	5	.00		SBR	d	1700	150	.09	267	.16
EBL	1	1700	14	.01*	59	.03		EBL	1	1700	131	.08*	152	.09
EBT	2	3400	6	.00	30	.02*		EBT	2	3400	74	.03	56	.03*
EBR	0	0	17	.01	97	.06		EBR	0	0	34		83	.05
WBL	2	3400	115	.03	660	.19*		WBL	2	3400	39	.01	603	.18*
WBT	1	1700	27	.02*	5	.02		WBT	1	1700	4	.01*	61	.05
WBR	0	0	5		22			WBR	0	0	5		22	
Right Turn Adjustment Clearance Interval					EBR	.02*		Right Turn Adjustment Clearance Interval		NBR	.02*			
			.05*			.05*					.05*		.05*	
TOTAL CAPACITY UTILIZATION			.56			.76		TOTAL CAPACITY UTILIZATION			.49		.65	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	30	.02*	26	.02
NBT	2	3400	1021	.30	1328	.39*
NBR	d	1700	659	.39	79	.05
SBL	1	1700	27	.02	9	.01*
SBT	2	3400	1069	.31*	1123	.33
SBR	d	1700	57	.03	146	.09
EBL	1	1700	65	.04*	91	.05
EBT	2	3400	63	.04	43	.03*
EBR	0	0	80	.05	99	.06
WBL	2	3400	40	.01	601	.18*
WBT	1	1700	10	.01*	64	.05
WBR	0	0	5		23	
Right Turn Adjustment Clearance Interval		NBR	.07*			
			.05*			.05*
TOTAL CAPACITY UTILIZATION			.50			.66

14. Bake Pkwy & Irvine Bl/Trabuco

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	221	.13	88	.05		NBL	1	1700	389	.23	264	.16*
NBT	3	5100	1968	.41*	1215	.36*		NBT	3	5100	1872	.39*	1034	.30
NBR	0	0	119		642	.38		NBR	0	0	122		734	.43
SBL	2	3400	46	.01*	273	.08*		SBL	2	3400	51	.02*	273	.08
SBT	3	5100	1017	.20	1357	.27		SBT	3	5100	752	.15	1183	.23*
SBR	1	1700	404	.24	779	.46		SBR	1	1700	83	.05	419	.25
EBL	2	3400	512	.15*	602	.18		EBL	2	3400	271	.08	315	.09
EBT	3	5100	144	.03	855	.17*		EBT	3	5100	93	.02*	512	.10*
EBR	1	1700	77	.05	236	.14		EBR	1	1700	349	.21	540	.32
WBL	2	3400	631	.19	332	.10*		WBL	2	3400	767	.23*	349	.10*
WBT	3	5100	799	.16*	335	.07		WBT	3	5100	494	.10	274	.05
WBR	1	1700	106	.06	95	.06		WBR	1	1700	105	.06	102	.06
Clearance Interval			.05*		.05*			Right Turn Adjustment				Multi	.14*	
TOTAL CAPACITY UTILIZATION			.78		.76			Clearance Interval				.05*	.05*	
								TOTAL CAPACITY UTILIZATION				.71	.78	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	418	.25*	377	.22*
NBT	3	5100	1841	.38	1053	.31
NBR	0	0	122		742	.44
SBL	2	3400	54	.02	279	.08
SBT	3	5100	858	.17*	1179	.23*
SBR	1	1700	85	.05	411	.24
EBL	2	3400	266	.08	310	.09
EBT	3	5100	96	.02*	464	.09*
EBR	1	1700	471	.28	588	.35
WBL	2	3400	720	.21*	350	.10*
WBT	3	5100	453	.09	266	.05
WBR	1	1700	103	.06	93	.05
Right Turn Adjustment		EBR	.07*		EBR	.09*
Clearance Interval			.05*			.05*
TOTAL CAPACITY UTILIZATION			.77			.78

15. Lake Forest Dr at Trabuco Rd

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	164	.05*	199	.06		NBL	2	3400	173	.05*	217	.06
NBT	3	5100	697	.14	949	.19*		NBT	3	5100	600	.12	800	.16*
NBR	1	1700	135	.08	427	.25		NBR	1	1700	142	.08	524	.31
SBL	2	3400	183	.05	287	.08*		SBL	2	3400	233	.07	384	.11*
SBT	3	5100	1027	.24*	776	.18		SBT	3	5100	909	.19*	631	.14
SBR	0	0	172		132			SBR	0	0	83		72	
EBL	2	3400	111	.03*	273	.08		EBL	2	3400	45	.01*	206	.06
EBT	3	5100	420	.08	873	.17*		EBT	3	5100	409	.08	639	.13*
EBR	1	1700	300	.18	130	.08		EBR	1	1700	304	.18	130	.08
WBL	2	3400	354	.10	131	.04*		WBL	2	3400	407	.12	100	.03*
WBT	3	5100	1118	.22*	360	.07		WBT	3	5100	976	.19*	329	.06
WBR	1	1700	427	.25	211	.12		WBR	1	1700	503	.30	273	.16
Right Turn Adjustment Clearance Interval					NBR	.03*		Right Turn Adjustment Clearance Interval		Multi	.08*	NBR	.13*	
			.05*			.05*					.05*		.05*	
TOTAL CAPACITY UTILIZATION			.59		.56			TOTAL CAPACITY UTILIZATION			.57		.61	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	2	3400	180	.05*	208	.06
NBT	3	5100	594	.12	824	.16*
NBR	1	1700	117	.07	526	.31
SBL	2	3400	259	.08	357	.11*
SBT	3	5100	919	.20*	640	.14
SBR	0	0	84		51	
EBL	2	3400	51	.02*	184	.05
EBT	3	5100	395	.08	619	.12*
EBR	1	1700	326	.19	127	.07
WBL	2	3400	393	.12	106	.03*
WBT	3	5100	899	.18*	303	.06
WBR	1	1700	493	.29	304	.18
Right Turn Adjustment Clearance Interval		Multi	.08*	NBR	.13*	
			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.58		.60	

16. Ridge Route Dr at Trabuco Rd

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	201	.12*	147	.09*		NBL	1	1700	202	.12*	150	.09*
NBT	0	0	0		0			NBT	0	0	0		0	
NBR	1	1700	175	.10	231	.14		NBR	1	1700	169	.10	195	.11
SBL	0	0	0		0			SBL	0	0	0		0	
SBT	0	0	0		0			SBT	0	0	0		0	
SBR	0	0	0		0			SBR	0	0	0		0	
EBL	0	0	0		0			EBL	0	0	0		0	
EBT	3	5100	493	.10	1744	.34*		EBT	3	5100	507	.10	1716	.34*
EBR	d	1700	191	.11	162	.10		EBR	d	1700	222	.13	153	.09
WBL	1	1700	208	.12	102	.06*		WBL	1	1700	192	.11	86	.05*
WBT	3	5100	1636	.32*	709	.14		WBT	3	5100	1621	.32*	706	.14
WBR	0	0	0		0			WBR	0	0	0		0	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.49		.54		TOTAL CAPACITY UTILIZATION			.49		.53		

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	195	.11*	151	.09*
NBT	0	0	0		0	
NBR	1	1700	156	.09	215	.13
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	508	.10	1667	.33*
EBR	d	1700	213	.13	150	.09
WBL	1	1700	229	.13	83	.05*
WBT	3	5100	1533	.30*	721	.14
WBR	0	0	0		0	
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.46		.52	

17. El Toro Rd at Trabuco Rd

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	246	.07*	343	.10	NBL	2	3400	287	.08*	399	.12
NBT	3	5100	682	.13	1181	.23*	NBT	3	5100	624	.12	1056	.21*
NBR	1	1700	136	.08	378	.22	NBR	1	1700	132	.08	379	.22
SBL	2	3400	209	.06	267	.08*	SBL	2	3400	214	.06	272	.08*
SBT	3	5100	1658	.33*	923	.18	SBT	3	5100	1480	.29*	798	.16
SBR	1	1700	333	.20	153	.09	SBR	1	1700	334	.20	105	.06
EBL	2	3400	186	.05*	459	.14	EBL	2	3400	197	.06*	371	.11
EBT	3	5100	294	.09	1093	.25*	EBT	3	5100	275	.08	1023	.26*
EBR	0	0	155	.09	205		EBR	0	0	166	.10	283	
WBL	2	3400	278	.08	142	.04*	WBL	2	3400	305	.09	158	.05*
WBT	3	5100	895	.18*	435	.09	WBT	3	5100	808	.16*	411	.08
WBR	1	1700	194	.11	225	.13	WBR	1	1700	174	.10	228	.13
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
Note: Assumes Right-Turn Overlap for SBR NBR						Note: Assumes Right-Turn Overlap for SBR NBR							
TOTAL CAPACITY UTILIZATION			.68		.65		TOTAL CAPACITY UTILIZATION			.64		.65	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	2	3400	290	.09*	410	.12
NBT	3	5100	603	.12	1099	.22*
NBR	1	1700	134	.08	369	.22
SBL	2	3400	211	.06	269	.08*
SBT	3	5100	1562	.31*	796	.16
SBR	1	1700	260	.15	101	.06
EBL	2	3400	163	.05*	363	.11
EBT	3	5100	282	.08	1028	.26*
EBR	0	0	176	.10	278	
WBL	2	3400	263	.08	159	.05*
WBT	3	5100	839	.16*	403	.08
WBR	1	1700	171	.10	225	.13
Clearance Interval			.05*		.05*	
Note: Assumes Right-Turn Overlap for SBR NBR						
TOTAL CAPACITY UTILIZATION			.66		.66	

18. Bake & Toledo

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	305	.18*	33	.02*		NBL	1	1700	275	.16*	39	.02*
NBT	3	5100	2039	.40	1829	.36		NBT	3	5100	2102	.41	1943	.38
NBR	d	1700	44	.03	422	.25		NBR	d	1700	46	.03	428	.25
SBL	1	1700	42	.02	78	.05		SBL	1	1700	48	.03	78	.05
SBT	3	5100	1761	.35*	2048	.40*		SBT	3	5100	1965	.39*	2201	.43*
SBR	d	1700	196	.12	36	.02		SBR	d	1700	123	.07	8	.00
EBL	2	3400	30	.01	193	.06		EBL	2	3400	20	.01	171	.05
EBT	2	3400	17	.01*	355	.10*		EBT	2	3400	18	.01*	263	.08*
EBR	1	1700	27	.02	216	.13		EBR	1	1700	24	.01	251	.15
WBL	1	1700	307	.18*	77	.05*		WBL	1	1700	266	.16*	47	.03*
WBT	2	3400	292	.10	29	.02		WBT	2	3400	252	.09	18	.01
WBR	0	0	64		86	.05		WBR	0	0	65		87	.05
Right Turn Adjustment Clearance Interval					EBR	.01*		Right Turn Adjustment Clearance Interval					EBR	.05*
				.05*		.05*								.05*
TOTAL CAPACITY UTILIZATION			.77		.63			TOTAL CAPACITY UTILIZATION			.77		.66	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	326	.19*	31	.02*
NBT	3	5100	2028	.40	1954	.38
NBR	d	1700	50	.03	418	.25
SBL	1	1700	45	.03	70	.04
SBT	3	5100	1959	.38*	2089	.41*
SBR	d	1700	161	.09	42	.02
EBL	2	3400	28	.01	194	.06
EBT	2	3400	12	.00*	342	.10*
EBR	1	1700	29	.02	204	.12
WBL	1	1700	275	.16*	78	.05*
WBT	2	3400	307	.11	28	.02
WBR	0	0	63		82	.05
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.78		.63	

19. Lake Forest Dr at Toledo Wy

Existing				Existing With Alton						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	1	1700	77 .05*	56 .03		NBL	1	1700	84 .05*	53 .03
NBT	3	5100	881 .17	1384 .27*		NBT	3	5100	802 .16	1372 .27*
NBR	d	1700	63 .04	105 .06		NBR	d	1700	68 .04	114 .07
SBL	1	1700	40 .02	57 .03*		SBL	1	1700	42 .02	51 .03*
SBT	3	5100	1401 .27*	938 .18		SBT	3	5100	1309 .26*	796 .16
SBR	d	1700	58 .03	23 .01		SBR	d	1700	67 .04	34 .02
EBL	1	1700	25 .01	124 .07		EBL	1	1700	28 .02	104 .06
EBT	2	3400	100 .05*	417 .14*		EBT	2	3400	101 .06*	359 .13*
EBR	0	0	80	64		EBR	0	0	89	99
WBL	1	1700	109 .06*	42 .02*		WBL	1	1700	118 .07*	23 .01*
WBT	2	3400	264 .09	75 .03		WBT	2	3400	204 .07	71 .03
WBR	0	0	38	37		WBR	0	0	34	37
Clearance Interval			.05*	.05*	Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION			.48	.51	TOTAL CAPACITY UTILIZATION			.49	.49	

Existing With Alton & SBRA Project					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	1	1700	69 .04*	52 .03	
NBT	3	5100	792 .16	1376 .27*	
NBR	d	1700	71 .04	114 .07	
SBL	1	1700	40 .02	52 .03*	
SBT	3	5100	1338 .26*	798 .16	
SBR	d	1700	57 .03	29 .02	
EBL	1	1700	27 .02	91 .05	
EBT	2	3400	103 .05*	362 .13*	
EBR	0	0	83	92	
WBL	1	1700	141 .08*	12 .01*	
WBT	2	3400	187 .07	70 .03	
WBR	0	0	34	36	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION			.48	.49	

20. Ridge Route Dr at Toledo Wy

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	32	.02	18	.01	NBL	1	1700	33	.02	18	.01
NBT	2	3400	306	.12*	344	.12*	NBT	2	3400	305	.13*	330	.11*
NBR	0	0	118		51		NBR	0	0	120		49	
SBL	1	1700	75	.04*	41	.02*	SBL	1	1700	83	.05*	40	.02*
SBT	2	3400	299	.11	205	.07	SBT	2	3400	297	.11	185	.06
SBR	0	0	81		19		SBR	0	0	64		15	
EBL	1	1700	54	.03*	55	.03	EBL	1	1700	54	.03*	52	.03
EBT	2	3400	138	.05	421	.13*	EBT	2	3400	144	.05	370	.12*
EBR	0	0	29		35		EBR	0	0	27		35	
WBL	1	1700	78	.05	47	.03*	WBL	1	1700	93	.05	46	.03*
WBT	2	3400	232	.09*	98	.05	WBT	2	3400	191	.08*	79	.04
WBR	0	0	66		59		WBR	0	0	67		62	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.33		.35		TOTAL CAPACITY UTILIZATION			.34		.33	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	34	.02	15	.01
NBT	2	3400	302	.12*	347	.12*
NBR	0	0	122		51	
SBL	1	1700	73	.04*	37	.02*
SBT	2	3400	302	.12	188	.06
SBR	0	0	102		18	
EBL	1	1700	54	.03	53	.03
EBT	2	3400	147	.05*	383	.12*
EBR	0	0	30		32	
WBL	1	1700	103	.06*	47	.03*
WBT	2	3400	158	.07	68	.04
WBR	0	0	65		68	
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.32		.34	

21. El Toro Rd at Toledo Wy

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C	
NBL	1	1700	103	.06*	148	.09*		NBL	1	1700	93	.05*	152	.09*
NBT	3	5100	951	.19	1664	.33		NBT	3	5100	940	.18	1631	.32
NBR	d	1700	18	.01	20	.01		NBR	d	1700	29	.02	20	.01
SBL	1	1700	6	.00	5	.00		SBL	1	1700	6	.00	5	.00
SBT	3	5100	1735	.34*	1341	.26*		SBT	3	5100	1703	.33*	1305	.26*
SBR	d	1700	292	.17	40	.02		SBR	d	1700	274	.16	16	.01
EBL	1.5		88		277			EBL	1.5		88		244	
EBT	0.5	3400	3	.03*	18	.09*		EBT	0.5	3400	10	.03*	14	.08*
EBR	1	1700	167	.10	159	.09		EBR	1	1700	179	.11	156	.09
WBL	0	0	29		19			WBL	0	0	29		19	
WBT	1	1700	31	.04*	11	.02*		WBT	1	1700	31	.04*	11	.02*
WBR	0	0	5		3			WBR	0	0	3		3	
Right Turn Adjustment		EBR	.02*					Right Turn Adjustment		EBR	.04*			
Clearance Interval			.05*			.05*		Clearance Interval			.05*			.05*
Note: Assumes E/W Split Phasing								Note: Assumes E/W Split Phasing						
TOTAL CAPACITY UTILIZATION			.54		.51			TOTAL CAPACITY UTILIZATION			.54		.50	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	
NBL	1	1700	99	.06*	160	.09*
NBT	3	5100	927	.18	1695	.33
NBR	d	1700	16	.01	20	.01
SBL	1	1700	6	.00	5	.00
SBT	3	5100	1774	.35*	1318	.26*
SBR	d	1700	241	.14	8	.00
EBL	1.5		88		249	
EBT	0.5	3400	9	.03*	17	.08*
EBR	1	1700	169	.10	154	.09
WBL	0	0	29		19	
WBT	1	1700	31	.04*	12	.02*
WBR	0	0	3		3	
Right Turn Adjustment		EBR	.02*			
Clearance Interval			.05*		.05*	
Note: Assumes E/W Split Phasing						
TOTAL CAPACITY UTILIZATION			.55		.50	

22. Bake & Jeronimo

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	384	.23*	35	.02	NBL	1	1700	386	.23*	34	.02
NBT	3	5100	2138	.42	1902	.37*	NBT	3	5100	2198	.43	2091	.41*
NBR	d	1700	43	.03	279	.16	NBR	d	1700	58	.03	194	.11
SBL	1	1700	45	.03	95	.06*	SBL	1	1700	40	.02	108	.06*
SBT	3	5100	1838	.36*	2064	.40	SBT	3	5100	2000	.39*	2274	.45
SBR	d	1700	114	.07	34	.02	SBR	d	1700	117	.07	-32	{.02}
EBL	2	3400	21	.01	106	.03	EBL	2	3400	-11	.00	46	.01
EBT	2	3400	21	.01*	428	.13*	EBT	2	3400	-9	.00*	407	.12*
EBR	1	1700	45	.03	358	.21	EBR	1	1700	44	.03	362	.21
WBL	1	1700	347	.20*	76	.04*	WBL	1	1700	292	.17*	75	.04*
WBT	2	3400	484	.16	54	.03	WBT	2	3400	448	.15	29	.02
WBR	0	0	61		35		WBR	0	0	67		31	.02
Right Turn Adjustment Clearance Interval					EBR	.06*	Right Turn Adjustment Clearance Interval			EBR	.07*		
			.05*			.05*				.05*		.05*	
TOTAL CAPACITY UTILIZATION			.85			.71	TOTAL CAPACITY UTILIZATION			.84		.75	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	387	.23*	33	.02
NBT	3	5100	2152	.42	2006	.39*
NBR	d	1700	37	.02	312	.18
SBL	1	1700	55	.03	87	.05*
SBT	3	5100	1932	.38*	2099	.41
SBR	d	1700	180	.11	38	.02
EBL	2	3400	25	.01	119	.04
EBT	2	3400	26	.01*	436	.13*
EBR	1	1700	46	.03	350	.21
WBL	1	1700	409	.24*	77	.05*
WBT	2	3400	451	.15	45	.02
WBR	0	0	57		38	
Right Turn Adjustment Clearance Interval					EBR	.06*
			.05*			.05*
TOTAL CAPACITY UTILIZATION			.91			.73

22. Bake & Jeronimo

Existing With Alton & SBRA Project & LFTM						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	387	.11*	33	.01
NBT	3	5100	2152	.42	2006	.39*
NBR	d	1700	37	.02	312	.18
SBL	1	1700	55	.03	87	.05*
SBT	3	5100	1932	.38*	2099	.41
SBR	d	1700	180	.11	38	.02
EBL	2	3400	25	.01	119	.04
EBT	2	3400	26	.01*	436	.13*
EBR	1	1700	46	.03	350	.21
WBL	1	1700	409	.24*	77	.05*
WBT	2	3400	451	.15	45	.02
WBR	0	0	57		38	
Right Turn Adjustment					EBR	.06*
Clearance Interval			.05*			.05*
TOTAL CAPACITY UTILIZATION			.79		.73	

23. Lake Forest Dr at Jeronimo Rd

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	87	.05*	71	.04	NBL	1	1700	82	.05*	74	.04
NBT	3	5100	648	.13	1275	.25*	NBT	3	5100	585	.11	1266	.25*
NBR	1	1700	150	.09	209	.12	NBR	1	1700	157	.09	233	.14
SBL	1	1700	194	.11	111	.07*	SBL	1	1700	197	.12	115	.07*
SBT	3	5100	1214	.24*	923	.18	SBT	3	5100	1136	.22*	820	.16
SBR	1	1700	248	.15	63	.04	SBR	1	1700	250	.15	36	.02
EBL	1	1700	50	.03*	186	.11	EBL	1	1700	44	.03*	186	.11
EBT	2	3400	156	.07	532	.18*	EBT	2	3400	115	.06	450	.15*
EBR	0	0	81		66		EBR	0	0	87		58	
WBL	1	1700	199	.12	101	.06*	WBL	1	1700	249	.15	123	.07*
WBT	2	3400	516	.21*	129	.07	WBT	2	3400	419	.18*	114	.06
WBR	0	0	197		99		WBR	0	0	197		103	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.58		.61		TOTAL CAPACITY UTILIZATION			.53		.59	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	90	.05*	73	.04
NBT	3	5100	563	.11	1279	.25*
NBR	1	1700	153	.09	228	.13
SBL	1	1700	196	.12	109	.06*
SBT	3	5100	1200	.24*	820	.16
SBR	1	1700	231	.14	26	.02
EBL	1	1700	48	.03*	176	.10
EBT	2	3400	130	.06	477	.16*
EBR	0	0	89		66	
WBL	1	1700	225	.13	111	.07*
WBT	2	3400	460	.19*	121	.07
WBR	0	0	196		103	
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.56		.59	

24. Ridge Route Dr at Jeronimo Rd

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	13	.01*	50	.03		NBL	1	1700	12	.01*	48	.03
NBT	2	3400	76	.02	292	.09*		NBT	2	3400	67	.02	291	.09*
NBR	d	1700	59	.03	98	.06		NBR	d	1700	63	.04	92	.05
SBL	1	1700	41	.02	50	.03*		SBL	1	1700	39	.02	52	.03*
SBT	2	3400	180	.05*	186	.05		SBT	2	3400	190	.06*	181	.05
SBR	d	1700	27	.02	21	.01		SBR	d	1700	33	.02	12	.01
EBL	1	1700	6	.00	51	.03		EBL	1	1700	10	.01*	68	.04
EBT	2	3400	275	.09	711	.22*		EBT	2	3400	265	.08	647	.20*
EBR	0	0	23		44			EBR	0	0	17		48	
WBL	1	1700	67	.04	76	.04*		WBL	1	1700	58	.03	66	.04*
WBT	2	3400	581	.18*	246	.09		WBT	2	3400	537	.17*	258	.09
WBR	0	0	24		52			WBR	0	0	40		53	
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.29		.43		TOTAL CAPACITY UTILIZATION			.30		.41		

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	9	.01*	51	.03
NBT	2	3400	67	.02	309	.09*
NBR	d	1700	66	.04	91	.05
SBL	1	1700	43	.03	63	.04*
SBT	2	3400	189	.06*	169	.05
SBR	d	1700	49	.03	20	.01
EBL	1	1700	22	.01*	67	.04
EBT	2	3400	261	.08	674	.21*
EBR	0	0	21		49	
WBL	1	1700	61	.04	76	.04*
WBT	2	3400	531	.17*	248	.09
WBR	0	0	45		46	
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.30		.43	

25. El Toro Rd at Jeronimo Rd

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	88	.05*	99	.06	NBL	1	1700	100	.06*	101	.06
NBT	3	5100	810	.16	1485	.29*	NBT	3	5100	769	.15	1496	.29*
NBR	1	1700	234	.14	357	.21	NBR	1	1700	234	.14	326	.19
SBL	1	1700	244	.14	287	.17*	SBL	1	1700	241	.14	276	.16*
SBT	3	5100	1579	.31*	1077	.21	SBT	3	5100	1582	.31*	1048	.21
SBR	d	1700	208	.12	49	.03	SBR	d	1700	192	.11	50	.03
EBL	1	1700	86	.05	131	.08	EBL	1	1700	94	.06	89	.05
EBT	2	3400	224	.11*	734	.25*	EBT	2	3400	203	.11*	729	.25*
EBR	0	0	160		120		EBR	0	0	169		113	
WBL	2	3400	420	.12*	273	.08*	WBL	2	3400	362	.11*	271	.08*
WBT	2	3400	513	.15	312	.09	WBT	2	3400	497	.15	312	.09
WBR	1	1700	209	.12	246	.14	WBR	1	1700	229	.13	245	.14
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
Note: Assumes Right-Turn Overlap for NBR						Note: Assumes Right-Turn Overlap for NBR							
TOTAL CAPACITY UTILIZATION			.64		.84		TOTAL CAPACITY UTILIZATION			.64		.83	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	97	.06*	99	.06
NBT	3	5100	773	.15	1496	.29*
NBR	1	1700	231	.14	329	.19
SBL	1	1700	242	.14	280	.16*
SBT	3	5100	1611	.32*	1054	.21
SBR	d	1700	202	.12	44	.03
EBL	1	1700	80	.05	136	.08
EBT	2	3400	221	.11*	718	.24*
EBR	0	0	168		108	
WBL	2	3400	378	.11*	260	.08*
WBT	2	3400	482	.14	305	.09
WBR	1	1700	212	.12	265	.16
Clearance Interval			.05*		.05*	
Note: Assumes Right-Turn Overlap for NBR						
TOTAL CAPACITY UTILIZATION			.65		.82	

26. Los Alisos Bl at Jeronimo Rd

Existing				Existing With Alton						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	1	1700	213 .13*	170 .10		NBL	1	1700	242 .14*	173 .10
NBT	3	5100	493 .10	1094 .21*		NBT	3	5100	449 .09	1037 .20*
NBR	1	1700	198 .12	184 .11		NBR	1	1700	206 .12	178 .10
SBL	1	1700	218 .13	192 .11*		SBL	1	1700	218 .13	188 .11*
SBT	3	5100	1130 .22*	579 .11		SBT	3	5100	1088 .21*	541 .11
SBR	1	1700	260 .15	144 .08		SBR	1	1700	233 .14	140 .08
EBL	2	3400	95 .03*	222 .07		EBL	2	3400	90 .03*	215 .06
EBT	2	3400	546 .16	611 .18*		EBT	2	3400	523 .15	579 .17*
EBR	1	1700	170 .10	159 .09		EBR	1	1700	175 .10	152 .09
WBL	2	3400	185 .05	168 .05*		WBL	2	3400	192 .06	176 .05*
WBT	2	3400	647 .19*	496 .15		WBT	2	3400	598 .18*	503 .15
WBR	1	1700	102 .06	201 .12		WBR	1	1700	100 .06	194 .11
Clearance Interval			.05*	.05*	Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION			.62	.60	TOTAL CAPACITY UTILIZATION			.61	.58	

Existing With Alton & SBRA Project					
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	1	1700	227 .13*	185 .11	
NBT	3	5100	432 .08	1068 .21*	
NBR	1	1700	215 .13	182 .11	
SBL	1	1700	222 .13	195 .11*	
SBT	3	5100	1132 .22*	525 .10	
SBR	1	1700	236 .14	141 .08	
EBL	2	3400	88 .03*	206 .06	
EBT	2	3400	506 .15	562 .17*	
EBR	1	1700	213 .13	172 .10	
WBL	2	3400	174 .05	189 .06*	
WBT	2	3400	597 .18*	481 .14	
WBR	1	1700	99 .06	200 .12	
Clearance Interval			.05*	.05*	
TOTAL CAPACITY UTILIZATION			.61	.60	

27. Lake Forest Dr. at Muirlands Bl.

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	35	.01*	25	.01	NBL	2	3400	30	.01*	29	.01
NBT	3	5100	641	.13	1285	.25*	NBT	3	5100	557	.11	1328	.26*
NBR	1	1700	112	.07	323	.19	NBR	1	1700	117	.07	320	.19
SBL	2	3400	125	.04	195	.06*	SBL	2	3400	122	.04	184	.05*
SBT	3	5100	1149	.23*	883	.17	SBT	3	5100	1211	.24*	826	.16
SBR	1	1700	104	.06	63	.04	SBR	1	1700	19	.01	47	.03
EBL	2	3400	43	.01*	207	.06	EBL	2	3400	44	.01*	204	.06
EBT	2	3400	131	.04	834	.25*	EBT	2	3400	137	.04	847	.25*
EBR	1	1700	29	.02	71	.04	EBR	1	1700	26	.02	76	.04
WBL	2	3400	291	.09	179	.05*	WBL	2	3400	279	.08	169	.05*
WBT	2	3400	625	.18*	229	.07	WBT	2	3400	637	.19*	230	.07
WBR	1	1700	195	.11	150	.09	WBR	1	1700	194	.11	136	.08
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
Note: Assumes Right-Turn Overlap for EBR						Note: Assumes Right-Turn Overlap for EBR							
TOTAL CAPACITY UTILIZATION			.48		.66		TOTAL CAPACITY UTILIZATION			.50		.66	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	2	3400	33	.01*	50	.01
NBT	3	5100	560	.11	1279	.25*
NBR	1	1700	118	.07	319	.19
SBL	2	3400	124	.04	179	.05*
SBT	3	5100	1249	.24*	818	.16
SBR	1	1700	27	.02	37	.02
EBL	2	3400	39	.01*	253	.07
EBT	2	3400	144	.04	838	.25*
EBR	1	1700	39	.02	78	.05
WBL	2	3400	233	.07	184	.05*
WBT	2	3400	658	.19*	214	.06
WBR	1	1700	192	.11	150	.09
Clearance Interval			.05*		.05*	
Note: Assumes Right-Turn Overlap for EBR						
TOTAL CAPACITY UTILIZATION			.50		.65	

28. Ridge Route Dr. at Muirlands Bl.

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	51	.03*	108	.06	NBL	1	1700	47	.03*	106	.06
NBT	2	3400	91	.03	261	.08*	NBT	2	3400	81	.02	257	.08*
NBR	d	1700	67	.04	163	.10	NBR	d	1700	66	.04	163	.10
SBL	1	1700	78	.05	123	.07*	SBL	1	1700	75	.04	114	.07*
SBT	2	3400	199	.06*	192	.06	SBT	2	3400	186	.05*	198	.06
SBR	d	1700	46	.03	47	.03	SBR	d	1700	49	.03	43	.03
EBL	1	1700	20	.01*	71	.04	EBL	1	1700	26	.02*	84	.05
EBT	2	3400	222	.07	1109	.33*	EBT	2	3400	220	.06	1105	.33*
EBR	1	1700	20	.01	67	.04	EBR	1	1700	20	.01	62	.04
WBL	1	1700	107	.06	79	.05*	WBL	1	1700	133	.08	75	.04*
WBT	2	3400	929	.27*	372	.11	WBT	2	3400	924	.27*	356	.10
WBR	1	1700	53	.03	101	.06	WBR	1	1700	50	.03	106	.06
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.42		.58		TOTAL CAPACITY UTILIZATION			.42		.57	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	42	.02*	108	.06
NBT	2	3400	79	.02	271	.08*
NBR	d	1700	62	.04	160	.09
SBL	1	1700	69	.04	114	.07*
SBT	2	3400	224	.07*	193	.06
SBR	d	1700	25	.01	45	.03
EBL	1	1700	23	.01*	73	.04
EBT	2	3400	232	.07	1106	.33*
EBR	1	1700	29	.02	67	.04
WBL	1	1700	114	.07	79	.05*
WBT	2	3400	922	.27*	367	.11
WBR	1	1700	52	.03	108	.06
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.42		.58	

29. El Toro Rd. at Muirlands Bl.

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	112	.03*	207	.06	NBL	2	3400	107	.03*	209	.06
NBT	3	5100	780	.15	1495	.29*	NBT	3	5100	792	.16	1497	.29*
NBR	1	1700	96	.06	300	.18	NBR	1	1700	97	.06	298	.18
SBL	2	3400	194	.06	212	.06*	SBL	2	3400	189	.06	193	.06*
SBT	3	5100	1473	.29*	1105	.22	SBT	3	5100	1432	.28*	1084	.21
SBR	1	1700	305	.18	117	.07	SBR	1	1700	318	.19	117	.07
EBL	2	3400	152	.04*	268	.08	EBL	2	3400	148	.04*	240	.07
EBT	2	3400	230	.07	773	.23*	EBT	2	3400	230	.07	770	.23*
EBR	1	1700	150	.09	314	.18	EBR	1	1700	154	.09	334	.20
WBL	2	3400	286	.08	261	.08*	WBL	2	3400	301	.09	245	.07*
WBT	2	3400	568	.17*	323	.10	WBT	2	3400	577	.17*	310	.09
WBR	1	1700	205	.12	144	.08	WBR	1	1700	170	.10	158	.09
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.58		.71		TOTAL CAPACITY UTILIZATION			.57		.70	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	2	3400	106	.03*	214	.06
NBT	3	5100	791	.16	1527	.30*
NBR	1	1700	100	.06	292	.17
SBL	2	3400	202	.06	188	.06*
SBT	3	5100	1475	.29*	1085	.21
SBR	1	1700	303	.18	110	.06
EBL	2	3400	152	.04*	227	.07
EBT	2	3400	217	.06	776	.23*
EBR	1	1700	168	.10	338	.20
WBL	2	3400	301	.09	251	.07*
WBT	2	3400	574	.17*	313	.09
WBR	1	1700	177	.10	139	.08
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.58		.71	

30. Muirlands Bl at Los Alisos Bl

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	224	.13*	192	.11		NBL	1	1700	203	.12*	193	.11
NBT	3	5100	519	.10	1188	.23*		NBT	3	5100	542	.11	1166	.23*
NBR	1	1700	233	.14	237	.14		NBR	1	1700	234	.14	238	.14
SBL	1	1700	310	.18	189	.11*		SBL	1	1700	287	.17	175	.10*
SBT	3	5100	948	.19*	638	.13		SBT	3	5100	948	.19*	642	.13
SBR	d	1700	269	.16	182	.11		SBR	d	1700	249	.15	159	.09
EBL	1	1700	115	.07	287	.17		EBL	1	1700	103	.06	284	.17
EBT	2	3400	348	.15*	637	.25*		EBT	2	3400	362	.16*	616	.24*
EBR	0	0	175		196			EBR	0	0	168		194	
WBL	1	1700	219	.13*	113	.07*		WBL	1	1700	207	.12*	115	.07*
WBT	2	3400	550	.16	328	.10		WBT	2	3400	570	.17	349	.10
WBR	1	1700	79	.05	148	.09		WBR	1	1700	60	.04	119	.07
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.65		.71		TOTAL CAPACITY UTILIZATION			.64		.69		

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	1	1700	206	.12*	196	.12
NBT	3	5100	517	.10	1193	.23*
NBR	1	1700	233	.14	231	.14
SBL	1	1700	313	.18	191	.11*
SBT	3	5100	987	.19*	655	.13
SBR	d	1700	250	.15	157	.09
EBL	1	1700	113	.07	292	.17
EBT	2	3400	357	.16*	600	.23*
EBR	0	0	170		198	
WBL	1	1700	203	.12*	121	.07*
WBT	2	3400	578	.17	334	.10
WBR	1	1700	45	.03	136	.08
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.64		.69	

31. Lake Forest Dr. at Rockfield Bl.

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	430	.13*	380	.11		NBL	2	3400	441	.13*	357	.11
NBT	3	5100	776	.15	1366	.27*		NBT	3	5100	724	.14	1412	.28*
NBR	1	1700	185	.11	623	.37		NBR	1	1700	186	.11	620	.36
SBL	2	3400	111	.03	196	.06*		SBL	2	3400	123	.04	195	.06*
SBT	4	6800	1270	.20*	1076	.17		SBT	4	6800	1353	.21*	1047	.16
SBR	0	0	69		47			SBR	0	0	49		51	
EBL	2	3400	40	.01	166	.05		EBL	2	3400	41	.01	166	.05
EBT	2	3400	111	.03*	467	.14*		EBT	2	3400	98	.03*	436	.13*
EBR	2	3400	203	.06	426	.13		EBR	2	3400	208	.06	436	.13
WBL	2	3400	388	.11*	409	.12*		WBL	2	3400	357	.11*	401	.12*
WBT	2	3400	266	.08	208	.06		WBT	2	3400	267	.08	196	.06
WBR	1	1700	67	.04	95	.06		WBR	1	1700	66	.04	101	.06
Right Turn Adjustment					NBR	.01*		Clearance Interval			.05*		.05*	
Clearance Interval			.05*			.05*								
TOTAL CAPACITY UTILIZATION			.52		.65			TOTAL CAPACITY UTILIZATION			.53		.64	
Existing With Alton & SBRA Project														
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	438	.13*	363	.11		NBL	2	3400	438	.13*	363	.11
NBT	3	5100	738	.14	1412	.28*		NBT	3	5100	738	.14	1412	.28*
NBR	1	1700	183	.11	598	.35		NBR	1	1700	183	.11	598	.35
SBL	2	3400	130	.04	187	.06*		SBL	2	3400	130	.04	187	.06*
SBT	4	6800	1355	.21*	1050	.16		SBT	4	6800	1355	.21*	1050	.16
SBR	0	0	45		58			SBR	0	0	45		58	
EBL	2	3400	33	.01	137	.04		EBL	2	3400	33	.01	137	.04
EBT	2	3400	95	.03*	454	.13*		EBT	2	3400	95	.03*	454	.13*
EBR	2	3400	210	.06	446	.13		EBR	2	3400	210	.06	446	.13
WBL	2	3400	393	.12*	405	.12*		WBL	2	3400	393	.12*	405	.12*
WBT	2	3400	258	.08	189	.06		WBT	2	3400	258	.08	189	.06
WBR	1	1700	60	.04	108	.06		WBR	1	1700	60	.04	108	.06
Clearance Interval			.05*		.05*									
TOTAL CAPACITY UTILIZATION			.54		.64									

32. Ridge Route Dr. at Rockfield Bl.

Existing				Existing With Alton						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	0.5		54 .03*	33 .02		NBL	0.5	131 .08*	56 .03*	
NBT	1.5	3400	14 .01	17 .02*		NBT	1.5	3400	24 .02	27 .02
NBR	0		11	9		NBR	0	11	9	
SBL	0.5		103 .06*	125 .07*		SBL	0.5	101 .06*	125 .07*	
SBT	1.5	3400	8 .00	16 .01		SBT	1.5	3400	11 .01	31 .02
SBR	d	1700	226 .13	124 .07		SBR	d	1700	236 .14	120 .07
EBL	1	1700	66 .04*	290 .17		EBL	1	1700	64 .04*	290 .17
EBT	2	3400	240 .07	965 .30*		EBT	2	3400	239 .08	937 .31*
EBR	0	0	8	56		EBR	0	0	21	121
WBL	1	1700	4 .00	21 .01*		WBL	1	1700	4 .00	21 .01*
WBT	2	3400	377 .13*	307 .13		WBT	2	3400	348 .12*	293 .12
WBR	0	0	49	128		WBR	0	0	55	122
Right Turn Adjustment		SBR	.04*			Right Turn Adjustment		SBR	.05*	
Clearance Interval			.05*			Clearance Interval			.05*	
Note: Assumes N/S Split Phasing				.05*		Note: Assumes N/S Split Phasing			.05*	
TOTAL CAPACITY UTILIZATION			.35	.45	TOTAL CAPACITY UTILIZATION			.40	.47	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		
NBL	0.5		130 .08*	57 .03*		
NBT	1.5	3400	25 .02	26 .02		
NBR	0		11	9		
SBL	0.5		113 .07*	131 .08*		
SBT	1.5	3400	10 .01	27 .02		
SBR	d	1700	257 .15	113 .07		
EBL	1	1700	52 .03*	304 .18		
EBT	2	3400	250 .08	929 .31*		
EBR	0	0	21	112		
WBL	1	1700	4 .00	21 .01*		
WBT	2	3400	346 .12*	303 .13		
WBR	0	0	52	125		
Right Turn Adjustment		SBR	.06*			
Clearance Interval			.05*			.05*
Note: Assumes N/S Split Phasing				.05*		
TOTAL CAPACITY UTILIZATION			.41	.48		

33. El Toro Rd. at Rockfield Bl.

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	2	3400	241	.07*	444	.13*		NBL	2	3400	245	.07*	450	.13*
NBT	4	6800	943	.14	1688	.25		NBT	4	6800	939	.14	1658	.24
NBR	d	1700	141	.08	225	.13		NBR	d	1700	134	.08	243	.14
SBL	2	3400	122	.04	204	.06		SBL	2	3400	111	.03	205	.06
SBT	4	6800	1675	.26*	1357	.22*		SBT	4	6800	1645	.25*	1312	.21*
SBR	0	0	65		122			SBR	0	0	40		126	
EBL	2	3400	68	.02	333	.10		EBL	2	3400	77	.02	336	.10
EBT	2	3400	186	.05*	534	.16*		EBT	2	3400	181	.05*	500	.15*
EBR	f		246		365			EBR			239		386	
WBL	2	3400	413	.12*	330	.10*		WBL	2	3400	459	.14*	342	.10*
WBT	2	3400	268	.08	229	.07		WBT	2	3400	240	.07	219	.06
WBR	1	1700	128	.08	102	.06		WBR	1	1700	130	.08	87	.05
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*		
TOTAL CAPACITY UTILIZATION			.55		.66		TOTAL CAPACITY UTILIZATION			.56		.64		

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	
NBL	2	3400	242	.07*	453	.13*
NBT	4	6800	930	.14	1675	.25
NBR	d	1700	121	.07	250	.15
SBL	2	3400	116	.03	210	.06
SBT	4	6800	1704	.26*	1314	.21*
SBR	0	0	36		125	
EBL	2	3400	66	.02	344	.10
EBT	2	3400	184	.05*	490	.14*
EBR	f		242		387	
WBL	2	3400	479	.14*	335	.10*
WBT	2	3400	249	.07	219	.06
WBR	1	1700	130	.08	103	.06
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.57		.63	

34. Los Alisos Bl at Rockfield/Fordview

Existing						Existing With Alton								
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C	
NBL	1	1700	249	.15*	256	.15*		NBL	1	1700	241	.14*	250	.15*
NBT	2	3400	770	.23	1242	.37		NBT	2	3400	775	.23	1254	.37
NBR	0	0	1		5			NBR	0	0	1		5	
SBL	1	1700	17	.01	27	.02		SBL	1	1700	20	.01	35	.02
SBT	2	3400	828	.41*	662	.28*		SBT	2	3400	787	.40*	653	.27*
SBR	0	0	557		282			SBR	0	0	578		280	
EBL	1.5		245		432			EBL	1.5		239		398	
EBT	0.5	3400	24	.08*	36	.14*		EBT	0.5	3400	23	.08*	35	.13*
EBR	1	1700	179	.11	360	.21		EBR	1	1700	181	.11	366	.22
WBL	0	0	10		8			WBL	0	0	10		8	
WBT	1	1700	47	.03*	27	.02*		WBT	1	1700	46	.03*	25	.02*
WBR	d	1700	40	.02	27	.02		WBR	d	1700	41	.02	30	.02
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*		
Note: Assumes E/W Split Phasing						Note: Assumes E/W Split Phasing								
TOTAL CAPACITY UTILIZATION			.72		.64		TOTAL CAPACITY UTILIZATION			.70		.62		

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	1	1700	242	.14*	245	.14*
NBT	2	3400	753	.22	1271	.38
NBR	0	0	1		5	
SBL	1	1700	12	.01	41	.02
SBT	2	3400	823	.42*	665	.28*
SBR	0	0	594		281	
EBL	1.5		240		396	
EBT	0.5	3400	22	.08*	37	.13*
EBR	1	1700	180	.11	363	.21
WBL	0	0	10		8	
WBT	1	1700	43	.03*	27	.02*
WBR	d	1700	42	.02	27	.02
Clearance Interval			.05*		.05*	
Note: Assumes E/W Split Phasing						
TOTAL CAPACITY UTILIZATION			.72		.62	

TOTAL CAPACITY UTILIZATION .72 .62

35. Lake Forest Dr. at I-5 NB Ramps

Existing				Existing With Alton						
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C		LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C	
NBL	0	0	0	0		NBL	0	0	0	
NBT	3	5100	994 .19	2046 .40*		NBT	3	5100	982 .19	2086 .41*
NBR	0	0	0	0		NBR	0	0	0	
SBL	0	0	0	0		SBL	0	0	0	
SBT	3	5100	1009 .20*	1071 .21		SBT	3	5100	980 .19*	1042 .20
SBR	f		873	718		SBR		960	720	
EBL	0	0	0	0		EBL	0	0	0	
EBT	0	0	0	0		EBT	0	0	0	
EBR	0	0	0	0		EBR	0	0	0	
WBL	2	3400	515 .15*	216 .06*		WBL	2	3400	522 .15*	200 .06*
WBT	0	0	0	0		WBT	0	0	0	
WBR	2	3400	490 .14	421 .12		WBR	2	3400	475 .14	412 .12
Right Turn Adjustment Clearance Interval					WBR				WBR	
			.05*	.05*					.06*	
TOTAL CAPACITY UTILIZATION			.40	.57	TOTAL CAPACITY UTILIZATION			.39	.58	

Existing With Alton & SBRA Project				
	LANES	CAPACITY	AM PK HOUR VOL V/C	PM PK HOUR VOL V/C
NBL	0	0	0	0
NBT	3	5100	984 .19	2064 .40*
NBR	0	0	0	0
SBL	0	0	0	0
SBT	3	5100	983 .19*	1069 .21
SBR	f		996	711
EBL	0	0	0	0
EBT	0	0	0	0
EBR	0	0	0	0
WBL	2	3400	503 .15*	198 .06*
WBT	0	0	0	0
WBR	2	3400	470 .14	404 .12
Right Turn Adjustment Clearance Interval				
			WBR	.06*
			.05*	.05*
TOTAL CAPACITY UTILIZATION			.39	.57

36. Lake Forest Dr. at Avenida Carlota/I-5 SB Ram

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0	0	0		0		NBL	0	0	0		0	
NBT	4	6800	485	.08	1082	.18*	NBT	4	6800	490	.08	1024	.17*
NBR	0	0	42		110		NBR	0	0	44		103	
SBL	2	3400	286	.08	304	.09*	SBL	2	3400	284	.08	305	.09*
SBT	3	5100	844	.17*	522	.10	SBT	3	5100	811	.16*	472	.09
SBR	f		291		322		SBR			303		324	
EBL	2.5		801		1480		EBL	2.5		797		1578	
EBT	1.5	6800	301	.16*	952	.36*	EBT	1.5	6800	300	.16*	934	.37*
EBR	1	1700	472	.28	240	.14	EBR	1	1700	433	.25	268	.16
WBL	1	1700	161	.09*	160	.09*	WBL	1	1700	163	.10*	163	.10*
WBT	0	0	0		0		WBT	0	0	0		0	
WBR	2	3400	158	.05	322	.09	WBR	2	3400	155	.05	318	.09
Right Turn Adjustment		EBR	.12*				Right Turn Adjustment		EBR	.09*			
Clearance Interval			.05*				Clearance Interval			.05*			.05*
Note: Assumes E/W Split Phasing							Note: Assumes E/W Split Phasing						
TOTAL CAPACITY UTILIZATION			.59		.77		TOTAL CAPACITY UTILIZATION			.56		.78	

Existing With Alton & SBRA Project					
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL
NBL	0	0	0		0
NBT	4	6800	474	.08	1012
NBR	0	0	45		112
SBL	2	3400	282	.08	317
SBT	3	5100	795	.16*	485
SBR	f		305		324
EBL	2.5		790		1552
EBT	1.5	6800	299	.16*	930
EBR	1	1700	457	.27	231
WBL	1	1700	160	.09*	165
WBT	0	0	0		0
WBR	2	3400	158	.05	323
Right Turn Adjustment		EBR	.11*		
Clearance Interval			.05*		.05*
Note: Assumes E/W Split Phasing					
TOTAL CAPACITY UTILIZATION			.57		.78

37. Paseo de Valencia at Carlota

Existing						Existing With Alton							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	2	3400	191	.06*	163	.05	NBL	2	3400	195	.06*	165	.05
NBT	1	1700	22	.01	91	.05*	NBT	1	1700	25	.01	91	.05*
NBR	1	1700	24	.01	58	.03	NBR	1	1700	24	.01	58	.03
SBL	2	3400	747	.22*	916	.27*	SBL	2	3400	724	.21	894	.26*
SBT	2	3400	707	.21	358	.11	SBT	2	3400	709	.22*	389	.12
SBR	0	0	19		27		SBR	0	0	27		21	
EBL	2	3400	132	.04*	258	.08	EBL	2	3400	141	.04*	253	.07
EBT	2	3400	214	.06	665	.20*	EBT	2	3400	219	.06	663	.20*
EBR	1	1700	110	.06	476	.28	EBR	1	1700	110	.06	466	.27
WBL	1	1700	5	.00	13	.01*	WBL	1	1700	5	.00	13	.01*
WBT	2	3400	434	.13*	274	.08	WBT	2	3400	429	.13*	263	.08
WBR	1	1700	440	.26	461	.27	WBR	1	1700	434	.26	459	.27
Right Turn Adjustment					EBR	.04*	Right Turn Adjustment			EBR	.03*		
Clearance Interval			.05*			.05*	Clearance Interval			.05*		.05*	
Note: Assumes N/S Split Phasing							Note: Assumes N/S Split Phasing						
TOTAL CAPACITY UTILIZATION			.50		.62		TOTAL CAPACITY UTILIZATION			.50		.60	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	
NBL	2	3400	186	.05*	163	.05
NBT	1	1700	20	.01	91	.05*
NBR	1	1700	24	.01	58	.03
SBL	2	3400	724	.21	916	.27*
SBT	2	3400	737	.23*	398	.13
SBR	0	0	33		49	
EBL	2	3400	134	.04*	258	.08
EBT	2	3400	211	.06	671	.20*
EBR	1	1700	110	.06	465	.27
WBL	1	1700	5	.00	13	.01*
WBT	2	3400	435	.13*	261	.08
WBR	1	1700	431	.25	458	.27
Right Turn Adjustment					EBR	.03*
Clearance Interval			.05*			.05*
Note: Assumes N/S Split Phasing						
TOTAL CAPACITY UTILIZATION			.50		.61	

38. El Toro Rd. at Bridger/I-5 NB

Existing						Existing With Alton									
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		
NBL	1	1700	63	.04*	67	.04		NBL	1	1700	63	.04*	67	.04	
NBT	2.5	6800	945	{.20}	1452	{.28}* 837		NBT	2.5	6800	940	{.20}	1443	{.28}* 858	
NBR	1.5		666					NBR	1.5		660				
SBL	0	0	0		0			SBL	0	0	0		0		
SBT	5	8500	2064	.26*	1837	.23		SBT	5	8500	2075	.26*	1822	.23	
SBR	0	0	113		102			SBR	0	0	113		102		
EBL	1	1700	45	.03*	89	.05*		EBL	1	1700	45	.03*	89	.05*	
EBT	1	1700	4	.00	6	.00		EBT	1	1700	4	.00	6	.00	
EBR	1	1700	166	.10	183	.11		EBR	1	1700	166	.10	183	.11	
WBL	1.5		498		510			WBL	1.5		491		508		
WBT	0	5100	60	{.16}* 406	44	.24*		WBT	0	5100	60	{.16}* 409	44	.24*	
WBR	1.5				717			WBR	1.5				705		
Right Turn Adjustment		EBR	.03*		EBR	.01*		Right Turn Adjustment		EBR	.03*		EBR	.01*	
Clearance Interval			.05*			.05*		Clearance Interval			.05*			.05*	
Note: Assumes Right-Turn Overlap for EBR			Note: Assumes Right-Turn Overlap for EBR												
TOTAL CAPACITY UTILIZATION			.57			TOTAL CAPACITY UTILIZATION			.57						

Existing With Alton & SBRA Project							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL		
NBL	1	1700	63	.04*	67	.04	
NBT	2.5	6800	915	{.19}	1467	{.29}* 859	
NBR	1.5		668			{.29}	
SBL	0	0	0		0		
SBT	5	8500	2152	.27*	1809	.22	
SBR	0	0	113		102		
EBL	1	1700	45	.03*	89	.05*	
EBT	1	1700	4	.00	6	.00	
EBR	1	1700	166	.10	183	.11	
WBL	1.5		495		511		
WBT	0	5100	60	{.16}* 399	44	.24*	
WBR	1.5				719		
Right Turn Adjustment		EBR	.03*				
Clearance Interval			.05*			.05*	
Note: Assumes Right-Turn Overlap for EBR							
TOTAL CAPACITY UTILIZATION			.58				

39. El Toro Rd. at Avd. Carlota

Existing						Existing With Alton							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR		LANES	CAPACITY	AM VOL	PK V/C	HOUR		
NBL	0	0	0		0		NBL	0	0		0		
NBT	4	6800	983	.14	1718	.25*	NBT	4	6800	977	.14	1721	.25*
NBR	d	1700	18	.01	76	.04	NBR	d	1700	22	.01	83	.05
SBL	2	3400	114	.03	361	.11*	SBL	2	3400	114	.03	363	.11*
SBT	3	5100	877	.17*	862	.17	SBT	3	5100	855	.17*	870	.17
SBR	1	1700	777	.46	706	.42	SBR	1	1700	769	.45	699	.41
EBL	1.5		668	.20*	868		EBL	1.5		650	.19*	861	
EBT	1.5	5100	219	.13	722	.31*	EBT	1.5	5100	210	.12	712	.31*
EBR	1	1700	124	.07	192	.11	EBR	1	1700	133	.08	185	.11
WBL	1	1700	20	.01	36	.02	WBL	1	1700	8	.00	42	.02
WBT	1	1700	130	.08*	102	.06*	WBT	1	1700	128	.08*	97	.06*
WBR	1	1700	301	.18	484	.28	WBR	1	1700	310	.18	495	.29
Right Turn Adjustment	Multi		.16*		WBR	.11*	Right Turn Adjustment	Multi	.16*	WBR	.12*		
Clearance Interval			.05*			.05*	Clearance Interval		.05*		.05*		
Note: Assumes E/W Split Phasing							Note: Assumes E/W Split Phasing						
Note: Assumes Right-Turn Overlap for SBR WBR							Note: Assumes Right-Turn Overlap for SBR WBR						
TOTAL CAPACITY UTILIZATION			.66		.89		TOTAL CAPACITY UTILIZATION			.65		.90	

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	
NBL	0	0	0		0	
NBT	4	6800	971	.14	1723	.25*
NBR	d	1700	21	.01	75	.04
SBL	2	3400	114	.03	349	.10*
SBT	3	5100	855	.17*	863	.17
SBR	1	1700	762	.45	701	.41
EBL	1.5		644	.19*	893	
EBT	1.5	5100	209	.12	744	.32*
EBR	1	1700	134	.08	150	.09
WBL	1	1700	4	.00	53	.03
WBT	1	1700	138	.08*	93	.05*
WBR	1	1700	306	.18	487	.29
Right Turn Adjustment	Multi		.16*		WBR	.14*
Clearance Interval			.05*			.05*
Note: Assumes E/W Split Phasing						
Note: Assumes Right-Turn Overlap for SBR WBR						
TOTAL CAPACITY UTILIZATION			.65		.91	

39. El Toro Rd. at Avd. Carlota

Existing With Alton & SBRA Project & LFTM						
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0	0	0		0	
NBT	4	6800	971	.14	1723	.25*
NBR	d	1700	21	.01	75	.04
SBL	2	3400	114	.03	349	.10*
SBT	3	5100	855	.17*	863	.17
SBR	1	1700	762	.45	701	.41
EBL	2.5		644		893	
EBT	1.5	6800	209	.15*	744	.26*
EBR	0		134		150	
WBL	0.5		4		53	
WBT	1.5	3400	138	.04*	93	.04*
WBR	2	3400	306	.09	487	.14
Right Turn Adjustment	Multi		.15*			
Clearance Interval			.05*			.05*
Note: Assumes E/W Split Phasing						
Note: Assumes Right-Turn Overlap for SBR WBR						
TOTAL CAPACITY UTILIZATION			.56		.70	

41. Alton & Towne Centre Dr

Existing With Alton						Existing With Alton & SBRA Project							
	LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C		LANES	CAPACITY	AM PK HOUR VOL	V/C	PM PK HOUR VOL	V/C
NBL	2	3400	86	.03*	82	.02	NBL	2	3400	85	.03*	84	.02
NBT	3	5100	533	.10	1465	.29*	NBT	3	5100	769	.15	1608	.32*
NBR	0	0	0		0		NBR	1	1700	187	.11	222	.13
SBL	0	0	0		0		SBL	2	3400	119	.04	24	.01*
SBT	3	5100	1532	.30*	890	.17	SBT	3	5100	1637	.32*	1110	.22
SBR	1	1700	53	.03	43	.03	SBR	1	1700	49	.03	25	.01
EBL	1	1700	15	.01*	69	.04*	EBL	1	1700	13	.01	54	.03
EBT	0	0	0		0		EBT	1	1700	18	.01*	17	.01*
EBR	1	1700	89	.05	90	.05	EBR	1	1700	86	.05	91	.05
WBL	0	0	0		0		WBL	1	1700	204	.12*	215	.13*
WBT	0	0	0		0		WBT	1	1700	12	.01	24	.01
WBR	0	0	0		0		WBR	1	1700	8	.00	98	.06
Right Turn Adjustment		EBR	.02*				Right Turn Adjustment		EBR	.02*			
Clearance Interval			.05*				Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.41		.38		TOTAL CAPACITY UTILIZATION			.55		.52	

42. Alton & Commercentre

Existing With Alton						Existing With Alton & SBRA Project							
	LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C		LANES	CAPACITY	AM PK VOL	HOUR V/C	PM PK VOL	HOUR V/C
NBL	0	0	0		0		NBL	0	0	0		0	
NBT	3	5100	579	.11	1378	.27*	NBT	3	5100	761	.15	1939	.38*
NBR	d	1700	292	.17	234	.14	NBR	d	1700	203	.12	190	.11
SBL	1	1700	112	.07	87	.05*	SBL	1	1700	163	.10	96	.06*
SBT	3	5100	1510	.30*	893	.18	SBT	3	5100	2159	.42*	1188	.23
SBR	0	0	0		0		SBR	0	0	0		0	
EBL	0	0	0		0		EBL	0	0	0		0	
EBT	0	0	0		0		EBT	0	0	0		0	
EBR	0	0	0		0		EBR	0	0	0		0	
WBL	1.5		163	.05*	449	.13*	WBL	1.5		105	.03*	303	.09*
WBT	0	5100	0		0		WBT	0	5100	0		0	
WBR	1.5		39		168	.10	WBR	1.5		40		180	{.06}
Clearance Interval			.05*		.05*		Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.40		.50		TOTAL CAPACITY UTILIZATION			.50		.58	

56. Bake & Dimension Dr

Existing						Existing With Alton							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR		LANES	CAPACITY	AM VOL	PK V/C	HOUR		
NBL	0	0	0		0		NBL	0	0		0		
NBT	2	3400	949	.28	1690	.50*	NBT	2	3400	877	.26*	1435	.42*
NBR	d	1700	170	.10	33	.02	NBR	d	1700	202	.12	140	.08
SBL	1	1700	173	.10	120	.07*	SBL	1	1700	284	.17*	121	.07*
SBT	2	3400	1561	.46*	1282	.38	SBT	2	3400	1208	.36	1141	.34
SBR	0	0	0		0		SBR	0	0		0		
EBL	0	0	0		0		EBL	0	0		0		
EBT	0	0	0		0		EBT	0	0		0		
EBR	0	0	0		0		EBR	0	0		0		
WBL	2	3400	63	.02*	223	.07*	WBL	2	3400	215	.06*	288	.08*
WBT	0	0	0		0		WBT	0	0		0		
WBR	1	1700	74	.04	127	.07	WBR	1	1700	86	.05	218	.13
Clearance Interval			.05*		.05*		Clearance Interval			.05*			
TOTAL CAPACITY UTILIZATION			.53		.69		TOTAL CAPACITY UTILIZATION			.54			

Existing With Alton & SBRA Project						
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	
NBL	1	1700	2	.00	67	.04
NBT	2	3400	858	.25	1607	.47*
NBR	d	1700	171	.10	20	.01
SBL	1	1700	219	.13	146	.09*
SBT	2	3400	1485	.44*	1159	.36
SBR	0	0	22		77	
EBL	1	1700	82	.05	40	.02
EBT	1	1700	74	.08*	31	.02*
EBR	0	0	66		3	
WBL	1	1700	40	.02*	206	.12*
WBT	1	1700	18	.01	66	.04
WBR	1	1700	71	.04	145	.09
Clearance Interval			.05*		.05*	
TOTAL CAPACITY UTILIZATION			.59		.75	

APPENDIX D

HCM WORKSHEETS

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Alton Pkwy/Retail Access

Average Delay (sec/veh): 2.2 Worst Case Level Of Service: F[57.4]

Street Name:	Retail Access			
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Lanes:	0 0 3 0 1	1 0 3 0 0	0 0 0 0 0	1 0 0 0 1

Volume Module:

Base Vol:	0 700 0 0 1670	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 700 0 0 1670	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
Added Vol:	0 321 21 19 110	0 0 0 0 0	0 0 0 0 0	57 0 51
PasserByVol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
Initial Fut:	0 1021 21 19 1780	0 0 0 0 0	0 0 0 0 0	57 0 51
User Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00
PHF Volume:	0 1021 21 19 1780	0 0 0 0 0	0 0 0 0 0	57 0 51
Reduct Vol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
FinalVolume:	0 1021 21 19 1780	0 0 0 0 0	0 0 0 0 0	57 0 51

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxx	4.1 xxxx xxxx xxxx xxxx xxxx	6.8 xxxx 6.9
FollowUpTim:xxxxx xxxx xxxx	2.2 xxxx xxxx xxxx xxxx xxxx	3.5 xxxx 3.3

Capacity Module:

Cnflict Vol: xxxx xxxx xxxx	1042 xxxx xxxx xxxx xxxx xxxx	1652 xxxx 340
Potent Cap.: xxxx xxxx xxxx	675 xxxx xxxx xxxx xxxx xxxx	91 xxxx 661
Move Cap.: xxxx xxxx xxxx	675 xxxx xxxx xxxx xxxx xxxx	89 xxxx 661
Volume/Cap:	xxxx xxxx 0.03 xxxx xxxx xxxx xxxx xxxx	0.64 xxxx 0.08

Level Of Service Module:

2Way95thQ:	xxxx xxxx xxxx 0.1 xxxx xxxx xxxx xxxx xxxx	3.0 xxxx 0.2
Control Del:xxxxx xxxx xxxx	10.5 xxxx xxxx xxxx xxxx xxxx xxxx	99.0 xxxx 10.9
LOS by Move:	* * * * B * * * * * * * * * F * B	
Movement:	LT - LTR - RT	
Shared Cap.:	xxxx	
SharedQueue:xxxxx xxxx		
Shrd ConDel:xxxxx xxxx		
Shared LOS:	* * * * * * * * * * * * * * * *	
ApproachDel:	xxxxxx xxxx xxxx xxxx	57.4
ApproachLOS:	* * * * * * * * * * * * * * * *	F

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Alton Pkwy/A Street

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	A Street			
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 0 1 0	1 0 0 1 0

Volume Module:

Base Vol:	0 810 0 0 1670 0 0 0 0 0 0 0 0 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 810 0 0 1670 0 0 0 0 0 0 0 0 0
Added Vol:	35 156 28 44 151 28 83 47 104 84 16 117
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	35 966 28 44 1821 28 83 47 104 84 16 117
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:	35 966 28 44 1821 28 83 47 104 84 16 117
Reduct Vol:	0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume:	35 966 28 44 1821 28 83 47 104 84 16 117

Critical Gap Module:

Critical Gp:	4.1 xxxx xxxx 4.1 xxxx xxxx 7.5 6.5 6.9 7.5 6.5 6.9
FollowUpTim:	2.2 xxxx xxxx 2.2 xxxx xxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:

Cnflict Vol:	1849 xxxx xxxx 994 xxxx xxxx 2323 2987 621 1769 2987 336
Potent Cap.:	333 xxxx xxxx 704 xxxx xxxx 21 14 435 54 14 666
Move Cap.:	333 xxxx xxxx 704 xxxx xxxx 0 12 435 0 12 666
Volume/Cap:	0.11 xxxx xxxx 0.06 xxxx xxxx xxxx 3.98 0.24 xxxx 1.35 0.18

Level Of Service Module:

2Way95thQ:	0.3 xxxx xxxx 0.2 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Control Del:	17.1 xxxx xxxx 10.5 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
LOS by Move:	C * * B * * * * * * * * *
Movement:	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 36 xxxx xxxx 87
SharedQueue:	xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 17.6 xxxx xxxx 10.5
Shrd ConDel:	xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 1674 xxxx xxxx 372.0
Shared LOS:	* * * * * * * * * F * * * F
ApproachDel:	xxxxxx xxxx +Inf +Inf
ApproachLOS:	* * * * F F

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Alton Pkwy/B Street

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Alton Parkway				B Street												
Approach:	North Bound		South Bound		East Bound		West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R		
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign				
Rights:	Include				Include				Include				Include				
Lanes:	1	0	2	1	0	1	0	2	1	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	0	810	0	0	1670	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	810	0	0	1670	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	17	114	47	21	303	14	40	23	51	140	8	65				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	924	47	21	1973	14	40	23	51	140	8	65				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	924	47	21	1973	14	40	23	51	140	8	65				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	17	924	47	21	1973	14	40	23	51	140	8	65				

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1987	xxxx	xxxxx	971	xxxx	xxxxx	2368	3027	665	1693	3011	332
Potent Cap.:	294	xxxx	xxxxx	718	xxxx	xxxxx	19	13	408	62	14	670
Move Cap.:	294	xxxx	xxxxx	718	xxxx	xxxxx	8	12	408	0	12	670
Volume/Cap:	0.06	xxxx	xxxx	0.03	xxxx	xxxx	5.12	1.90	0.13	xxxx	0.64	0.10

Level Of Service Module:

2Way95thQ:	0.2	xxxx	xxxxx	0.1	xxxx	xxxxx	6.4	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	18.0	xxxx	xxxxx	10.2	xxxx	xxxxx	2777	xxxx	xxxxx	xxxx	xxxx	xxxxx			
LOS by Move:	C	*	*	B	*	*	F	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	37	xxxx	xxxx	99			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.1	xxxxx	xxxx	3.9			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	710.0	xxxxx	xxxx	107.8			
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	F			
ApproachDel:	xxxxxx			xxxxxx			1435.1			+Inf					
ApproachLOS:	*			*			F			F					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Retail Access/Rancho Pkwy

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: B[10.6]

Street Name:	Apartment Access Ranch Parkway			
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 2 0 0	0 0 1 1 0

Volume Module:

Base Vol:	0 0 0 0 0	0 0 0 0 0	0 48 0 0 0	327 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	0 0 0	0 0 0	0 48 0	0 327 0
Added Vol:	0 0 0	34 0 126	47 42 0	0 15 13
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 0 0	34 0 126	47 90 0	0 342 13
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	0 0 0	34 0 126	47 90 0	0 342 13
Reduc Vol:	0 0 0	0 0 0	0 0 0	0 0 0
FinalVolume:	0 0 0	34 0 126	47 90 0	0 342 13

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxx	6.8 xxxx	6.9	4.1 xxxx xxxx xxxx xxxx
FollowUpTim:xxxxx xxxx xxxx	3.5 xxxx	3.3	2.2 xxxx xxxx xxxx xxxx

Capacity Module:

Cnflict Vol: xxxx xxxx xxxx	488 xxxx	178	355 xxxx xxxx xxxx xxxx
Potent Cap.: xxxx xxxx xxxx	514 xxxx	841	1215 xxxx xxxx xxxx xxxx
Move Cap.: xxxx xxxx xxxx	499 xxxx	841	1215 xxxx xxxx xxxx xxxx
Volume/Cap: xxxx xxxx xxxx	0.07 xxxx	0.15	0.04 xxxx xxxx xxxx xxxx

Level Of Service Module:

2Way95thQ: xxxx xxxx xxxx	0.2 xxxx	0.5	0.1 xxxx xxxx xxxx xxxx
Control Del:xxxxx xxxx xxxx	12.7 xxxx	10.0	8.1 xxxx xxxx xxxx xxxx
LOS by Move: * * * B A *	B	*	*
Movement: LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
SharedQueue:xxxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Shrd ConDel:xxxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Shared LOS: * * * * *	*	*	*
ApproachDel: xxxxxx	10.6	xxxxxx	xxxxxx
ApproachLOS: *	B	*	*

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #15 PA F/Commercenter Dr

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[11.6]

Street Name:	Planning Area F				Commercenter Drive			
Approach:	North Bound	South Bound	East Bound	West Bound				
Movement:	L - T - R	L - T - R	L - T - R	L - T - R				
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled				
Rights:	Include	Include	Include	Include				
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 2 0 0	0 0 1 1 0				

Volume Module:

Base Vol:	0 0 0 0 0	0 0 0 0 0	0 0 630 0 0	0 0 360 0 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Initial Bse:	0 0 0	0 0 0	0 630 0	0 360 0
Added Vol:	0 0 0	14 0 26	9 33 0	0 26 5
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 0 0	14 0 26	9 663 0	0 386 5
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Volume:	0 0 0	14 0 26	9 663 0	0 386 5
Reduc Vol:	0 0 0	0 0 0	0 0 0	0 0 0
FinalVolume:	0 0 0	14 0 26	9 663 0	0 386 5

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx	6.8 xxxx	6.9	4.1 xxxx xxxx xxxx xxxx
FollowUpTim:	xxxxx xxxx xxxx	3.5 xxxx	3.3	2.2 xxxx xxxx xxxx xxxx

Capacity Module:

Cnflict Vol:	xxxx xxxx xxxx	738 xxxx	196	391 xxxx xxxx xxxx xxxx
Potent Cap.:	xxxx xxxx xxxx	358 xxxx	819	1179 xxxx xxxx xxxx xxxx
Move Cap.:	xxxx xxxx xxxx	355 xxxx	819	1179 xxxx xxxx xxxx xxxx
Volume/Cap:	xxxx xxxx xxxx	0.04 xxxx	0.03	0.01 xxxx xxxx xxxx xxxx

Level Of Service Module:

2Way95thQ:	xxxx xxxx xxxx	0.1 xxxx	0.1	0.0 xxxx xxxx xxxx xxxx
Control Del:	xxxxx xxxx xxxx	15.5 xxxx	9.5	8.1 xxxx xxxx xxxx xxxx
LOS by Move:	* * *	C *	A A *	* * * * *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
SharedQueue:	xxxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Shrd ConDel:	xxxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Shared LOS:	* * * * *	* * * * *	* * * * *	* * * * *
ApproachDel:	xxxxxx	11.6	xxxxxx	xxxxxx
ApproachLOS:	*	B	*	*

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
FHWA Roundabout Method (Future Volume Alternative)

Intersection #16 Roundabout

Average Delay (sec/veh): 3.5 Level Of Service: A

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Yield Sign	Yield Sign	Yield Sign	Yield Sign
Lanes:	1	1	0	1

Volume Module:

Base Vol:	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	21	91	125	20	0	0	0	0	46	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	21	91	125	20	0	0	0	0	46	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	21	91	125	20	0	0	0	0	46	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	21	91	125	20	0	0	0	0	46	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	21	91	125	20	0	0	0	0	46	0

PCE Module:

AutoPCE:	0	21	91	125	20	0	0	0	46	0	55
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	0	21	91	125	20	0	0	0	0	46	0

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	125	46	191	21
MaxVolume:	1133	1175	xxxxxx	1189
PedVolume:	0	0	0	0
AdjMaxVol:	1133	1175	xxxxxx	1189
ApproachVol:	112	145	xxxxxx	101
ApproachV/C:	0.10	0.12	1.00	0.08
ApproachDel:	3.5	3.5	xxxxxx	3.3
ApproachLOS:	A	A	*	A
Queue:	0.3	0.4	xxxx	0.3

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Alton Pkwy/Retail Access

Average Delay (sec/veh): 15.7 Worst Case Level Of Service: F[521.6]

Street Name:	Retail Access			
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Lanes:	0 0 3 0 1	1 0 3 0 0	0 0 0 0 0	1 0 0 0 1

Volume Module:

Base Vol:	0 1600 0 0 1040 0 0 0 0 0 0 0 0 0 0 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 1600 0 0 1040 0 0 0 0 0 0 0 0 0 0 0
Added Vol:	0 227 75 67 352 0 0 0 0 0 0 54 0 48
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	0 1827 75 67 1392 0 0 0 0 0 0 54 0 48
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:	0 1827 75 67 1392 0 0 0 0 0 0 54 0 48
Reduct Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume:	0 1827 75 67 1392 0 0 0 0 0 0 54 0 48

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxx	4.1 xxxx xxxx xxxx xxxx xxxx xxxx	6.8 xxxx 6.9
FollowUpTim:xxxxx xxxx xxxx	2.2 xxxx xxxx xxxx xxxx xxxx	3.5 xxxx 3.3

Capacity Module:

Cnflict Vol: xxxx xxxx xxxx	1902 xxxx xxxx xxxx xxxx xxxx	2425 xxxx 609
Potent Cap.: xxxx xxxx xxxx	317 xxxx xxxx xxxx xxxx xxxx	27 xxxx 443
Move Cap.: xxxx xxxx xxxx	317 xxxx xxxx xxxx xxxx xxxx	23 xxxx 443
Volume/Cap:	xxxx xxxx 0.21 xxxx xxxx xxxx xxxx xxxx	2.35 xxxx 0.11

Level Of Service Module:

2Way95thQ:	xxxx xxxx xxxx 0.8 xxxx xxxx xxxx xxxx xxxx	6.8 xxxx 0.4
Control Del:xxxxx xxxx xxxx	19.4 xxxx xxxx xxxx xxxx xxxx xxxx	972.7 xxxx 14.1
LOS by Move:	* * * C * * * * * * * F * B	
Movement:	LT - LTR - RT	
Shared Cap.:	xxxx	
SharedQueue:xxxxx xxxx xxxx	xxxx	
Shrd ConDel:xxxxx xxxx xxxx	xxxx	
Shared LOS:	* * * * * * * * * * * *	
ApproachDel:	xxxxxx xxxx xxxx	521.6
ApproachLOS:	* * * * * * * * * * * F	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Alton Pkwy/A Street

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	A Street			
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 0 1 0	1 0 0 1 0

Volume Module:

Base Vol:	0 1580	0 0	1110 0	0 0	0 0	0 0	0 0	0 0	0 0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	0 1580	0 0	1110 0	0 0	0 0	0 0	0 0	0 0	0 0
Added Vol:	106 225	86 123	231 85	55 31	69 55	48 82			
PasserByVol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Initial Fut:	106 1805	86 123	1341 85	55 31	69 55	48 82			
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Volume:	106 1805	86 123	1341 85	55 31	69 55	48 82			
Reduct Vol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
FinalVolume:	106 1805	86 123	1341 85	55 31	69 55	48 82			

Critical Gap Module:

Critical Gp:	4.1 xxxx xxxx	4.1 xxxx xxxx	7.5 6.5	6.9 7.5	6.5 6.5	6.9 6.9
FollowUpTim:	2.2 xxxx xxxx	2.2 xxxx xxxx	3.5 4.0	3.3 3.5	4.0 4.0	3.3 3.3

Capacity Module:

Cnflict Vol:	1426 xxxx xxxx	1891 xxxx xxxx	2467 3733	490 2769	3732 645
Potent Cap.:	483 xxxx xxxx	320 xxxx xxxx	16 4	530 9	4 420
Move Cap.:	483 xxxx xxxx	320 xxxx xxxx	0 2	530 0	2 420
Volume/Cap:	0.22 xxxx xxxx	0.38 xxxx xxxx	xxxx14.36	0.13 xxxx22.22	0.20

Level Of Service Module:

2Way95thQ:	0.8 xxxx xxxx	1.7 xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Control Del:	14.5 xxxx xxxx	23.1 xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
LOS by Move:	B *	*	C *	*	*
Movement:	LT - LTR - RT				
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx	7 xxxx xxxx	6
SharedQueue:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	14.3 xxxx xxxx	18.2
Shrd ConDel:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	7115 xxxx xxxx	10874
Shared LOS:	*	*	*	F *	F
ApproachDel:	xxxxxx	xxxxxx	+Inf	+Inf	
ApproachLOS:	*	*	F	F	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Alton Pkwy/B Street

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Alton Parkway				B Street												
Approach:	North Bound		South Bound		East Bound		West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R		
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign				
Rights:	Include				Include				Include				Include				
Lanes:	1	0	2	1	0	1	0	2	1	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	0	1580	0	0	1110	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1580	0	0	1110	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	52	347	155	73	241	41	27	15	34	93	23	43				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	1927	155	73	1351	41	27	15	34	93	23	43				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	1927	155	73	1351	41	27	15	34	93	23	43				
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	52	1927	155	73	1351	41	27	15	34	93	23	43				

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1392	xxxx	xxxxx	2082	xxxx	xxxxx	2275	3704	471	2712	3647	720
Potent Cap.:	498	xxxx	xxxxx	270	xxxx	xxxxx	22	5	545	10	5	375
Move Cap.:	498	xxxx	xxxxx	270	xxxx	xxxxx	0	3	545	0	3	375
Volume/Cap:	0.10	xxxx	xxxx	0.27	xxxx	xxxx	xxxx	4.89	0.06	xxxx	6.86	0.11

Level Of Service Module:

2Way95thQ:	0.3	xxxx	xxxxx	1.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	13.1	xxxx	xxxxx	23.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	B	*	*	C	*	*	*	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	10	xxxx	xxxx	9			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	7.4	xxxxx	xxxx	9.6			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	2523	xxxxx	xxxx	3463			
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	F			
ApproachDel:	xxxxxx			xxxxxx					+Inf			+Inf			
ApproachLOS:	*			*					F			F			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Retail Access/Rancho Pkwy

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: B[10.9]

Street Name:	Apartment Access				Ranch Parkway			
Approach:	North Bound	South Bound	East Bound	West Bound				
Movement:	L - T - R	L - T - R	L - T - R	L - T - R				
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled				
Rights:	Include	Include	Include	Include				
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 2 0 0	0 0 1 1 0				

Volume Module:

Base Vol:	0 0 0 0 0	0 0 0 0 0	0 0 294 0 0	0 0 114 0 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Initial Bse:	0 0 0	0 0 0	0 294 0	0 0 114 0
Added Vol:	0 0 0	33 0 119	166 31 0	0 0 47 45
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0 0
Initial Fut:	0 0 0	33 0 119	166 325 0	0 0 161 45
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Volume:	0 0 0	33 0 119	166 325 0	0 0 161 45
Reduc Vol:	0 0 0	0 0 0	0 0 0	0 0 0 0
FinalVolume:	0 0 0	33 0 119	166 325 0	0 0 161 45

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx	6.8 xxxx	6.9	4.1 xxxx xxxx xxxx xxxx
FollowUpTim:	xxxxx xxxx xxxx	3.5 xxxx	3.3	2.2 xxxx xxxx xxxx xxxx

Capacity Module:

Cnflict Vol:	xxxx xxxx xxxx	678 xxxx	103	206 xxxx xxxx xxxx xxxx
Potent Cap.:	xxxx xxxx xxxx	390 xxxx	938	1377 xxxx xxxx xxxx xxxx
Move Cap.:	xxxx xxxx xxxx	354 xxxx	938	1377 xxxx xxxx xxxx xxxx
Volume/Cap:	xxxx xxxx xxxx	0.09 xxxx	0.13	0.12 xxxx xxxx xxxx xxxx

Level Of Service Module:

2Way95thQ:	xxxx xxxx xxxx	0.3 xxxx	0.4	0.4 xxxx xxxx xxxx xxxx
Control Del:	xxxxx xxxx xxxx	16.2 xxxx	9.4	8.0 xxxx xxxx xxxx xxxx
LOS by Move:	* * *	C *	A A *	* * * * *
Movement:	LT - LTR - RT			
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
SharedQueue:	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx
Shrd ConDel:	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx
Shared LOS:	* * * *	* * *	* * *	* * * *
ApproachDel:	xxxxxx	10.9	xxxxxx	xxxxxx
ApproachLOS:	*	B	*	*

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #15 PA F/Commercenter Dr

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C[15.3]

Street Name:	Planning Area F				Commercenter Drive			
Approach:	North Bound	South Bound	East Bound	West Bound				
Movement:	L - T - R	L - T - R	L - T - R	L - T - R				
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled				
Rights:	Include	Include	Include	Include				
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 2 0 0	0 0 1 1 0				

Volume Module:

Base Vol:	0 0 0 0 0	0 0 0 0 0	0 0 460 0 0	0 0 740 0 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Initial Bse:	0 0 0	0 0 0	0 460 0	0 0 740 0
Added Vol:	0 0 0	9 0 17	29 35 0	0 0 40 16
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0 0
Initial Fut:	0 0 0	9 0 17	29 495 0	0 0 780 16
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Volume:	0 0 0	9 0 17	29 495 0	0 0 780 16
Reduc Vol:	0 0 0	0 0 0	0 0 0	0 0 0 0
FinalVolume:	0 0 0	9 0 17	29 495 0	0 0 780 16

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx	6.8 xxxx	6.9	4.1 xxxx xxxx xxxx xxxx xxxx xxxx
FollowUpTim:	xxxxx xxxx xxxx	3.5 xxxx	3.3	2.2 xxxx xxxx xxxx xxxx xxxx xxxx

Capacity Module:

Cnflict Vol:	xxxx xxxx xxxx	1094 xxxx	398	796 xxxx xxxx xxxx xxxx xxxx xxxx
Potent Cap.:	xxxx xxxx xxxx	212 xxxx	607	835 xxxx xxxx xxxx xxxx xxxx xxxx
Move Cap.:	xxxx xxxx xxxx	206 xxxx	607	835 xxxx xxxx xxxx xxxx xxxx xxxx
Volume/Cap:	xxxx xxxx xxxx	0.04 xxxx	0.03	0.03 xxxx xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:

2Way95thQ:	xxxx xxxx xxxx	0.1 xxxx	0.1	0.1 xxxx xxxx xxxx xxxx xxxx xxxx
Control Del:	xxxxx xxxx xxxx	23.3 xxxx	11.1	9.5 xxxx xxxx xxxx xxxx xxxx xxxx
LOS by Move:	* * *	C *	B A *	* * * * *
Movement:	LT - LTR - RT			
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx
SharedQueue:	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx xxxx
Shared LOS:	* * * *	* * *	* * *	* * * *
ApproachDel:	xxxxxx	15.3	xxxxxx	xxxxxx
ApproachLOS:	*	C	*	*

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

FHWA Roundabout Method (Future Volume Alternative)

Intersection #16 Roundabout

Average Delay (sec/veh): 3.6 Level Of Service: A

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Yield Sign	Yield Sign	Yield Sign	Yield Sign
Lanes:	1	1	0	1

Volume Module:

Base Vol:	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	25	73	95	27	0	0	0	105	0	135
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	25	73	95	27	0	0	0	105	0	135
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	25	73	95	27	0	0	0	105	0	135
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	25	73	95	27	0	0	0	105	0	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	25	73	95	27	0	0	0	105	0	135

PCE Module:

AutoPCE:	0	25	73	95	27	0	0	0	105	0	135
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	0	25	73	95	27	0	0	0	105	0	135

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	95	105	227	25
MaxVolume:	1149	1143	xxxxxx	1187
PedVolume:	0	0	0	0
AdjMaxVol:	1149	1143	xxxxxx	1187
ApproachVol:	98	122	xxxxxx	240
ApproachV/C:	0.09	0.11	1.00	0.20
ApproachDel:	3.4	3.5	xxxxxx	3.8
ApproachLOS:	A	A	*	A
Queue:	0.3	0.4	xxxx	0.8

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Alton Pkwy/Retail Access

Average Delay (sec/veh): 6.1 Worst Case Level Of Service: F[235.9]

Street Name:	Retail Access			
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Lanes:	0 0 3 0 1	1 0 3 0 0	0 0 0 0 0	1 0 0 0 1

Volume Module:

Base Vol:	0 840 0 0 2770	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 840 0 0 2770	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
Added Vol:	0 321 21 19 110	0 0 0 0 0	0 0 0 0 0	57 0 51
PasserByVol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
Initial Fut:	0 1161 21 19 2880	0 0 0 0 0	0 0 0 0 0	57 0 51
User Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00
PHF Volume:	0 1161 21 19 2880	0 0 0 0 0	0 0 0 0 0	57 0 51
Reduct Vol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
FinalVolume:	0 1161 21 19 2880	0 0 0 0 0	0 0 0 0 0	57 0 51

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx 4.1 xxxx xxxx xxxx xxxx xxxx	6.8 xxxx 6.9
FollowUpTim:	xxxxx xxxx xxxx 2.2 xxxx xxxx xxxx xxxx xxxx	3.5 xxxx 3.3

Capacity Module:

Cnflct Vol:	xxxx xxxx xxxx 1182 xxxx xxxx xxxx xxxx xxxx	2159 xxxx 387
Potent Cap.:	xxxx xxxx xxxx 598 xxxx xxxx xxxx xxxx xxxx	42 xxxx 617
Move Cap.:	xxxx xxxx xxxx 598 xxxx xxxx xxxx xxxx xxxx	41 xxxx 617
Volume/Cap:	xxxx xxxx xxxx 0.03 xxxx xxxx xxxx xxxx xxxx	1.40 xxxx 0.08

Level Of Service Module:

2Way95thQ:	xxxx xxxx xxxx 0.1 xxxx xxxx xxxx xxxx xxxx	5.8 xxxx 0.3
Control Del:	xxxxx xxxx xxxx 11.2 xxxx xxxx xxxx xxxx xxxx	436.8 xxxx 11.4
LOS by Move:	* * * * B * * * * * * * * * F * B	
Movement:	LT - LTR - RT	
Shared Cap.:	xxxx	
SharedQueue:	xxxxx xxxx	
Shrd ConDel:	xxxxx xxxx	
Shared LOS:	* * * * * * * * * * * * * * * *	
ApproachDel:	xxxxxx xxxx xxxx xxxx xxxx	235.9
ApproachLOS:	* * * * * * * * * * * * * * * *	F

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Alton Pkwy/A Street

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	A Street			
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 0 1 0	1 0 0 1 0

Volume Module:

Base Vol:	0 990	0 0	2650 0	0 0	0 0	0 0	0 0	0 0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	0 990	0 0	2650 0	0 0	0 0	0 0	0 0	0 0
Added Vol:	35 156	28 44	151 28	83 47	104 104	84 84	16 16	117 117
PasserByVol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Initial Fut:	35 1146	28 44	2801 28	83 47	104 104	84 84	16 16	117 117
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Volume:	35 1146	28 44	2801 28	83 47	104 104	84 84	16 16	117 117
Reduc Vol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
FinalVolume:	35 1146	28 44	2801 28	83 47	104 104	84 84	16 16	117 117

Critical Gap Module:

Critical Gp:	4.1 xxxx xxxx	4.1 xxxx xxxx	7.5 6.5	6.9 7.5	6.5 6.5	6.9 6.9
FollowUpTim:	2.2 xxxx xxxx	2.2 xxxx xxxx	3.5 4.0	3.3 3.5	4.0 4.0	3.3 3.3

Capacity Module:

Cnflict Vol:	2829 xxxx xxxx	1174 xxxx xxxx	3363 4147	948 2275	4147 396
Potent Cap.:	137 xxxx xxxx	602 xxxx xxxx	3 2	265 22	2 609
Move Cap.:	137 xxxx xxxx	602 xxxx xxxx	0 2	265 0	2 609
Volume/Cap:	0.26 xxxx xxxx	0.07 xxxx xxxx	xxxx 29.02	0.39 xxxx	9.88 0.19

Level Of Service Module:

2Way95thQ:	1.0 xxxx xxxx	0.2 xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Control Del:	40.0 xxxx xxxx	11.4 xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
LOS by Move:	E *	*	B *	*	*
Movement:	LT - LTR - RT				
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx	5 xxxx xxxx	13
SharedQueue:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx	20.9 xxxx xxxx	17.8
Shrd ConDel:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	14182 xxxx xxxx	4643
Shared LOS:	*	*	*	F *	F
ApproachDel:	xxxxxx	xxxxxx	+Inf	+Inf	
ApproachLOS:	*	*	F	F	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Alton Pkwy/B Street

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Alton Parkway				B Street												
Approach:	North Bound		South Bound		East Bound		West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R		
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign				
Rights:	Include				Include				Include				Include				
Lanes:	1	0	2	1	0	1	0	2	1	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	0	990	0	0	2650	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	990	0	0	2650	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	17	114	47	21	303	14	40	23	51	140	8	65				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	1104	47	21	2953	14	40	23	51	140	8	65				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	1104	47	21	2953	14	40	23	51	140	8	65				
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	17	1104	47	21	2953	14	40	23	51	140	8	65				

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	2967	xxxx	xxxxx	1151	xxxx	xxxxx	3408	4187	991	2199	4171	392
Potent Cap.:	121	xxxx	xxxxx	614	xxxx	xxxxx	3	2	248	26	2	613
Move Cap.:	121	xxxx	xxxxx	614	xxxx	xxxxx	0	2	248	0	2	613
Volume/Cap:	0.14	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	12.58	0.21	xxxx	4.26	0.11

Level Of Service Module:

2Way95thQ:	0.5	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	39.6	xxxx	xxxxx	11.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
LOS by Move:	E	*	*	B	*	*	*	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	6	xxxx	xxxx	17			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.0	xxxxx	xxxx	9.8			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	6538	xxxxx	xxxx	1979			
Shared LOS:	*	*	*	*	*	*	*	*	F	*	*	F			
ApproachDel:	xxxxxx			xxxxxx					+Inf			+Inf			
ApproachLOS:	*			*					F			F			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Retail Access/Rancho Pkwy

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: B[10.4]

Street Name:	Apartment Access Ranch Parkway			
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 2 0 0	0 0 1 1 0

Volume Module:

Base Vol:	0 0 0 0 0	0 0 0 0 0	0 48 0 0 0	286 0 0 0 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	0 0 0	0 0 0	0 48 0	0 0 286 0
Added Vol:	0 0 0	34 0 126	47 42 0	0 0 15 13
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0 0
Initial Fut:	0 0 0	34 0 126	47 90 0	0 0 301 13
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	0 0 0	34 0 126	47 90 0	0 0 301 13
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0 0
FinalVolume:	0 0 0	34 0 126	47 90 0	0 0 301 13

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxx	6.8 xxxx	6.9	4.1 xxxx xxxx xxxx xxxx
FollowUpTim:xxxxx xxxx xxxx	3.5 xxxx	3.3	2.2 xxxx xxxx xxxx xxxx

Capacity Module:

Cnflict Vol: xxxx xxxx xxxx	447 xxxx	157	314 xxxx xxxx xxxx xxxx
Potent Cap.: xxxx xxxx xxxx	546 xxxx	867	1258 xxxx xxxx xxxx xxxx
Move Cap.: xxxx xxxx xxxx	530 xxxx	867	1258 xxxx xxxx xxxx xxxx
Volume/Cap: xxxx xxxx xxxx	0.06 xxxx	0.15	0.04 xxxx xxxx xxxx xxxx

Level Of Service Module:

2Way95thQ: xxxx xxxx xxxx	0.2 xxxx	0.5	0.1 xxxx xxxx xxxx xxxx
Control Del:xxxxx xxxx xxxx	12.3 xxxx	9.9	8.0 xxxx xxxx xxxx xxxx
LOS by Move: * * * B A A *	*	*	*
Movement: LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
SharedQueue:xxxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Shrd ConDel:xxxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Shared LOS: * * * * *	*	*	*
ApproachDel: xxxxxx	10.4	xxxxxx	xxxxxx
ApproachLOS: *	B	*	*

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #15 PA F/Commercenter Dr

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[11.2]

Street Name:	Planning Area F				Commercenter Drive			
Approach:	North Bound	South Bound	East Bound	West Bound				
Movement:	L - T - R	L - T - R	L - T - R	L - T - R				
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled				
Rights:	Include	Include	Include	Include				
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 2 0 0	0 0 1 1 0				

Volume Module:

Base Vol:	0 0 0 0 0	0 0 0 0 0	0 0 730 0 0	0 0 260 0 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Initial Bse:	0 0 0	0 0 0	0 730 0	0 0 260 0
Added Vol:	0 0 0	14 0 26	9 33 0	0 0 26 5
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0 0
Initial Fut:	0 0 0	14 0 26	9 763 0	0 0 286 5
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Volume:	0 0 0	14 0 26	9 763 0	0 0 286 5
Reduc Vol:	0 0 0	0 0 0	0 0 0	0 0 0 0
FinalVolume:	0 0 0	14 0 26	9 763 0	0 0 286 5

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx	6.8 xxxx	6.9	4.1 xxxx xxxx xxxx xxxx
FollowUpTim:	xxxxx xxxx xxxx	3.5 xxxx	3.3	2.2 xxxx xxxx xxxx xxxx

Capacity Module:

Cnflict Vol:	xxxx xxxx xxxx	688 xxxx	146	291 xxxx xxxx xxxx xxxx
Potent Cap.:	xxxx xxxx xxxx	385 xxxx	882	1282 xxxx xxxx xxxx xxxx
Move Cap.:	xxxx xxxx xxxx	383 xxxx	882	1282 xxxx xxxx xxxx xxxx
Volume/Cap:	xxxx xxxx xxxx	0.04 xxxx	0.03	0.01 xxxx xxxx xxxx xxxx

Level Of Service Module:

2Way95thQ:	xxxx xxxx xxxx	0.1 xxxx	0.1	0.0 xxxx xxxx xxxx xxxx
Control Del:	xxxxx xxxx xxxx	14.8 xxxx	9.2	7.8 xxxx xxxx xxxx xxxx
LOS by Move:	* * *	B *	A	* * * * *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
SharedQueue:	xxxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Shrd ConDel:	xxxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Shared LOS:	* * * * *	* * * * *	* * * * *	* * * * *
ApproachDel:	xxxxxx	11.2	xxxxxx	xxxxxx
ApproachLOS:	*	B	*	*

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

FHWA Roundabout Method (Future Volume Alternative)

Intersection #16 Roundabout

Average Delay (sec/veh): 3.5 Level Of Service: A

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Yield Sign	Yield Sign	Yield Sign	Yield Sign
Lanes:	1	1	0	1

Volume Module:

Base Vol:	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	21	91	125	20	0	0	0	46	0	55
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	21	91	125	20	0	0	0	46	0	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	21	91	125	20	0	0	0	46	0	55
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	21	91	125	20	0	0	0	46	0	55
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	21	91	125	20	0	0	0	46	0	55

PCE Module:

AutoPCE:	0	21	91	125	20	0	0	0	46	0	55
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	0	21	91	125	20	0	0	0	46	0	55

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	125	46	191	21
MaxVolume:	1133	1175	xxxxxx	1189
PedVolume:	0	0	0	0
AdjMaxVol:	1133	1175	xxxxxx	1189
ApproachVol:	112	145	xxxxxx	101
ApproachV/C:	0.10	0.12	1.00	0.08
ApproachDel:	3.5	3.5	xxxxxx	3.3
ApproachLOS:	A	A	*	A
Queue:	0.3	0.4	xxxx	0.3

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Alton Pkwy/Retail Access

Average Delay (sec/veh): 121.6 Worst Case Level Of Service: F[5675.8]

Street Name:	Retail Access			
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Lanes:	0 0 3 0 1	1 0 3 0 0	0 0 0 0 0	1 0 0 0 1

Volume Module:

Base Vol:	0 2580	0 0	0 1390	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	0 2580	0 0	0 1390	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Added Vol:	0 227	75 67	352 352	0 0	0 0	0 0	0 0	0 0	54 54	0 0	48 48
PasserByVol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Initial Fut:	0 2807	75 67	1742 1742	0 0	0 0	0 0	0 0	0 0	54 54	0 0	48 48
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Volume:	0 2807	75 67	1742 1742	0 0	0 0	0 0	0 0	0 0	54 54	0 0	48 48
Reduct Vol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
FinalVolume:	0 2807	75 67	1742 1742	0 0	0 0	0 0	0 0	0 0	54 54	0 0	48 48

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx	4.1 xxxx xxxx xxxx xxxx xxxx	6.8 xxxx	6.9
FollowUpTim:	xxxxx xxxx xxxx	2.2 xxxx xxxx xxxx xxxx xxxx	3.5 xxxx	3.3

Capacity Module:

Cnflict Vol:	xxxx xxxx xxxx	2882 xxxx xxxx xxxx xxxx xxxx	3522 xxxx	936
Potent Cap.:	xxxx xxxx xxxx	131 xxxx xxxx xxxx xxxx xxxx	5 xxxx	270
Move Cap.:	xxxx xxxx xxxx	131 xxxx xxxx xxxx xxxx xxxx	3 xxxx	270
Volume/Cap:	xxxx xxxx xxxx	0.51 xxxx xxxx xxxx xxxx xxxx	19.28 xxxx	0.18

Level Of Service Module:

2Way95thQ:	xxxx xxxx xxxx	2.4 xxxx xxxx xxxx xxxx xxxx	8.7 xxxx	0.6
Control Del:	xxxxx xxxx xxxx	58.5 xxxx xxxx xxxx xxxx xxxx	10702 xxxx	21.2
LOS by Move:	*	*	F *	C
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
SharedQueue:	xxxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Shrd ConDel:	xxxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Shared LOS:	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	5675.8
ApproachLOS:	*	*	*	F

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Alton Pkwy/A Street

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	A Street			
Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 0 1 0	1 0 0 1 0

Volume Module:

Base Vol:	0 2500	0 0	0 1490	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	0 2500	0 0	0 1490	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Added Vol:	106 225	86 86	123 231	85 85	55 55	31 31	69 69	55 55	48 48	82 82	
PasserByVol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Initial Fut:	106 2725	86 86	123 1721	85 85	55 55	31 31	69 69	55 55	48 48	82 82	
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Volume:	106 2725	86 86	123 1721	85 85	55 55	31 31	69 69	55 55	48 48	82 82	
Reduct Vol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
FinalVolume:	106 2725	86 86	123 1721	85 85	55 55	31 31	69 69	55 55	48 48	82 82	

Critical Gap Module:

Critical Gp:	4.1 xxxx xxxx	4.1 xxxx xxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2 xxxx xxxx	2.2 xxxx xxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	1806 xxxx xxxx	2811 xxxx xxxx	3154 5033	616 3815	5032 951
Potent Cap.:	345 xxxx xxxx	139 xxxx xxxx	5 1	438 1	1 264
Move Cap.:	345 xxxx xxxx	139 xxxx xxxx	0 0	438 0	0 264
Volume/Cap:	0.31 xxxx xxxx	0.88 xxxx xxxx	xxxx xxxx	0.16 xxxx xxxx	0.31

Level Of Service Module:

2Way95thQ:	1.3 xxxx xxxx	5.8 xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
Control Del:	20.0 xxxx xxxx	108.9 xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx
LOS by Move:	C *	*	F *	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx	0 xxxx xxxx	0
SharedQueue:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	15.0 xxxx xxxx	18.8
Shrd ConDel:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	
Shared LOS:	*	*	*	*	F *
ApproachDel:	xxxxxx	xxxxxx	+Inf	+Inf	
ApproachLOS:	*	*	F	F	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Alton Pkwy/B Street

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	Alton Parkway				B Street															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Rights:	Include				Include				Include				Include							
Lanes:	1	0	2	1	0	1	0	2	1	0	1	0	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	0	2500	0	0	1490	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2500	0	0	1490	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	52	347	155	73	241	41	27	15	34	93	23	43							
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	2847	155	73	1731	41	27	15	34	93	23	43							
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	2847	155	73	1731	41	27	15	34	93	23	43							
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	52	2847	155	73	1731	41	27	15	34	93	23	43							

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9							
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3							

Capacity Module:

Cnflct Vol:	1772	xxxx	xxxxx	3002	xxxx	xxxxx	2962	5004	598	3759	4947	1027							
Potent Cap.:	356	xxxx	xxxxx	117	xxxx	xxxxx	7	1	451	2	1	235							
Move Cap.:	356	xxxx	xxxxx	117	xxxx	xxxxx	0	0	451	0	0	235							
Volume/Cap:	0.15	xxxx	xxxx	0.62	xxxx	xxxx	xxxx	77.98	0.08	xxxx	xxxx	0.18							

Level Of Service Module:

2Way95thQ:	0.5	xxxx	xxxxx	3.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							
Control Del:	16.8	xxxx	xxxxx	76.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							
LOS by Move:	C	*	*	F	*	*	*	*	*	*	*	*							
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT				
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxx	1	xxxx	xxxx	1					
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxxx	xxxx	xxxx	8.3	xxxxx	xxxx	10.5					
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxxx	xxxx	45481	xxxxx	xxxx	60101						
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	F	*	*	F				
ApproachDel:	xxxxxx			xxxxxx						+Inf			+Inf						
ApproachLOS:	*			*						F			F						

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Retail Access/Rancho Pkwy

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: B[10.9]

Street Name:	Apartment Access				Ranch Parkway														
Approach:	North Bound		South Bound		East Bound		West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Rights:	Include				Include				Include				Include						
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	1	1	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	0	294	0	0	0	114	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	294	0	0	0	114	0
Added Vol:	0	0	0	33	0	119	166	31	0	0	0	47	45	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	33	0	119	166	325	0	0	0	161	45	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	33	0	119	166	325	0	0	0	161	45	
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	33	0	119	166	325	0	0	0	161	45	

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxx	6.8 xxxx	6.9	4.1 xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxx
FollowUpTim:xxxxx xxxx xxxx	3.5 xxxx	3.3	2.2 xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxx

Capacity Module:

Cnflct Vol: xxxx xxxx xxxx	678 xxxx	103	206 xxxx	xxxxx	xxxx	xxxx	xxxx	xxxx
Potent Cap.: xxxx xxxx xxxx	390 xxxx	938	1377 xxxx	xxxxx	xxxx	xxxx	xxxx	xxxx
Move Cap.: xxxx xxxx xxxx	354 xxxx	938	1377 xxxx	xxxxx	xxxx	xxxx	xxxx	xxxx
Volume/Cap:	xxxx xxxx xxxx	0.09 xxxx	0.13	0.12 xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ: xxxx xxxx xxxx	0.3 xxxx	0.4	0.4 xxxx	xxxxx	xxxx	xxxx	xxxx	xxxx
Control Del:xxxxx xxxx xxxx	16.2 xxxx	9.4	8.0 xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxx
LOS by Move: * * *	C *	A	A *	*	*	*	*	*
Movement: LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT				
Shared Cap.: xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx	xxxx	xxxx	xxxx
SharedQueue:xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxx	xxxx	xxxx	xxxx
Shrd ConDel:xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS: * * * *	* *	*	*	*	*	*	*	*
ApproachDel: xxxxxx		10.9		xxxxxx		xxxxxx		
ApproachLOS: *		B		*		*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #15 PA F/Commercenter Dr

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C[16.8]

Street Name:	Planning Area F				Commercenter Drive			
Approach:	North Bound	South Bound	East Bound	West Bound				
Movement:	L - T - R	L - T - R	L - T - R	L - T - R				
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled				
Rights:	Include	Include	Include	Include				
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 2 0 0	0 0 1 1 0				

Volume Module:

Base Vol:	0 0 0 0 0	0 0 0 0 0	0 0 390 0 0	0 0 870 0 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Initial Bse:	0 0 0	0 0 0	0 390 0	0 0 870 0
Added Vol:	0 0 0	9 0 17	29 35 0	0 0 40 16
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0 0
Initial Fut:	0 0 0	9 0 17	29 425 0	0 0 910 16
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Volume:	0 0 0	9 0 17	29 425 0	0 0 910 16
Reduc Vol:	0 0 0	0 0 0	0 0 0	0 0 0 0
FinalVolume:	0 0 0	9 0 17	29 425 0	0 0 910 16

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx	6.8 xxxx	6.9	4.1 xxxx xxxx xxxx xxxx xxxx xxxx
FollowUpTim:	xxxxx xxxx xxxx	3.5 xxxx	3.3	2.2 xxxx xxxx xxxx xxxx xxxx xxxx

Capacity Module:

Cnflict Vol:	xxxx xxxx xxxx	1189 xxxx	463	926 xxxx xxxx xxxx xxxx xxxx xxxx
Potent Cap.:	xxxx xxxx xxxx	184 xxxx	551	746 xxxx xxxx xxxx xxxx xxxx xxxx
Move Cap.:	xxxx xxxx xxxx	178 xxxx	551	746 xxxx xxxx xxxx xxxx xxxx xxxx
Volume/Cap:	xxxx xxxx xxxx	0.05 xxxx	0.03	0.04 xxxx xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:

2Way95thQ:	xxxx xxxx xxxx	0.2 xxxx	0.1	0.1 xxxx xxxx xxxx xxxx xxxx xxxx
Control Del:	xxxxx xxxx xxxx	26.3 xxxx	11.7	10.0 xxxx xxxx xxxx xxxx xxxx xxxx
LOS by Move:	* * *	D	B	* * * * *
Movement:	LT - LTR - RT			
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx
SharedQueue:	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx xxxx
Shared LOS:	* * * * *	*	*	* * * * *
ApproachDel:	xxxxxx	16.8	xxxxxx	xxxxxx
ApproachLOS:	*	C	*	*

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

FHWA Roundabout Method (Future Volume Alternative)

Intersection #16 Roundabout

Average Delay (sec/veh): 3.6 Level Of Service: A

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Yield Sign	Yield Sign	Yield Sign	Yield Sign
Lanes:	1	1	0	1

Volume Module:

Base Vol:	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	25	73	95	27	0	0	0	105	0	135
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	25	73	95	27	0	0	0	105	0	135
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	25	73	95	27	0	0	0	105	0	135
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	25	73	95	27	0	0	0	105	0	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	25	73	95	27	0	0	0	105	0	135

PCE Module:

AutoPCE:	0	25	73	95	27	0	0	0	105	0	135
TruckPCE:	0	0	0	0	0	0	0	0	0	0	0
ComboPCE:	0	0	0	0	0	0	0	0	0	0	0
BicyclePCE:	0	0	0	0	0	0	0	0	0	0	0
AdjVolume:	0	25	73	95	27	0	0	0	105	0	135

Delay Module: >> Time Period: 0.25 hours <<

CircVolume:	95	105	227	25
MaxVolume:	1149	1143	xxxxxx	1187
PedVolume:	0	0	0	0
AdjMaxVol:	1149	1143	xxxxxx	1187
ApproachVol:	98	122	xxxxxx	240
ApproachV/C:	0.09	0.11	1.00	0.20
ApproachDel:	3.4	3.5	xxxxxx	3.8
ApproachLOS:	A	A	*	A
Queue:	0.3	0.4	xxxx	0.8

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Retail Access/Rancho Pkwy

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: B[11.6]

Street Name:	Apartment Access				Ranch Parkway														
Approach:	North Bound		South Bound		East Bound		West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Rights:	Include				Include				Include				Include						
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	1	1	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	48	0	0	327	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	48	0	0	327	0
Added Vol:	0	0	0	34	0	126	47	42	0	0	15	13
PasserByVol:	0	0	0	57	0	51	0	0	0	0	0	0
Initial Fut:	0	0	0	91	0	177	47	90	0	0	342	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	91	0	177	47	90	0	0	342	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	91	0	177	47	90	0	0	342	13

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	488	xxxx	178	355	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	514	xxxx	841	1215	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	499	xxxx	841	1215	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.18	xxxx	0.21	0.04	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.7	xxxx	0.8	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	13.8	xxxx	10.4	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	B	*	B	A	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx				11.6		xxxxxx		xxxxxx		xxxxxx				
ApproachLOS:	*				B		*		*		*				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Retail Access/Rancho Pkwy

Average Delay (sec/veh): 4.8 Worst Case Level Of Service: B[12.7]

Street Name:	Apartment Access				Ranch Parkway														
Approach:	North Bound		South Bound		East Bound		West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Rights:	Include				Include				Include				Include						
Lanes:	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	0	1	1	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	294	0	0	114	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	294	0	0	114	0
Added Vol:	0	0	0	33	0	119	166	31	0	0	47	45
PasserByVol:	0	0	0	54	0	48	0	0	0	0	0	0
Initial Fut:	0	0	0	87	0	167	166	325	0	0	161	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	87	0	167	166	325	0	0	161	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	87	0	167	166	325	0	0	161	45

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	678	xxxx	103	206	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	390	xxxx	938	1377	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	354	xxxx	938	1377	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.25	xxxx	0.18	0.12	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.9	xxxx	0.6	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	18.4	xxxx	9.7	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	C	*	A	A	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx				12.7		xxxxxx		xxxxxx		xxxxxx				
ApproachLOS:	*				B		*		*		*				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Retail Access/Rancho Pkwy

Average Delay (sec/veh): 4.7 Worst Case Level Of Service: B[11.2]

Street Name:	Apartment Access				Ranch Parkway														
Approach:	North Bound		South Bound		East Bound		West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Rights:	Include				Include				Include				Include						
Lanes:	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	1	1	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	48	0	0	286	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	48	0	0	286	0
Added Vol:	0	0	0	34	0	126	47	42	0	0	15	13
PasserByVol:	0	0	0	57	0	51	0	0	0	0	0	0
Initial Fut:	0	0	0	91	0	177	47	90	0	0	301	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	91	0	177	47	90	0	0	301	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	91	0	177	47	90	0	0	301	13

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	447	xxxx	157	314	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	546	xxxx	867	1258	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	530	xxxx	867	1258	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.17	xxxx	0.20	0.04	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.6	xxxx	0.8	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	13.2	xxxx	10.2	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	B	*	B	A	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx				11.2			xxxxxx			xxxxxx				
ApproachLOS:	*				B			*			*				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Retail Access/Rancho Pkwy

Average Delay (sec/veh): 4.8 Worst Case Level Of Service: B[12.7]

Street Name:	Apartment Access				Ranch Parkway														
Approach:	North Bound		South Bound		East Bound		West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Rights:	Include				Include				Include				Include						
Lanes:	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	0	1	1	0

Volume Module:

Base Vol:	0	0	0	0	0	0	0	294	0	0	114	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	294	0	0	114	0
Added Vol:	0	0	0	33	0	119	166	31	0	0	47	45
PasserByVol:	0	0	0	54	0	48	0	0	0	0	0	0
Initial Fut:	0	0	0	87	0	167	166	325	0	0	161	45
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	87	0	167	166	325	0	0	161	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	87	0	167	166	325	0	0	161	45

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	678	xxxx	103	206	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	390	xxxx	938	1377	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	354	xxxx	938	1377	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.25	xxxx	0.18	0.12	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

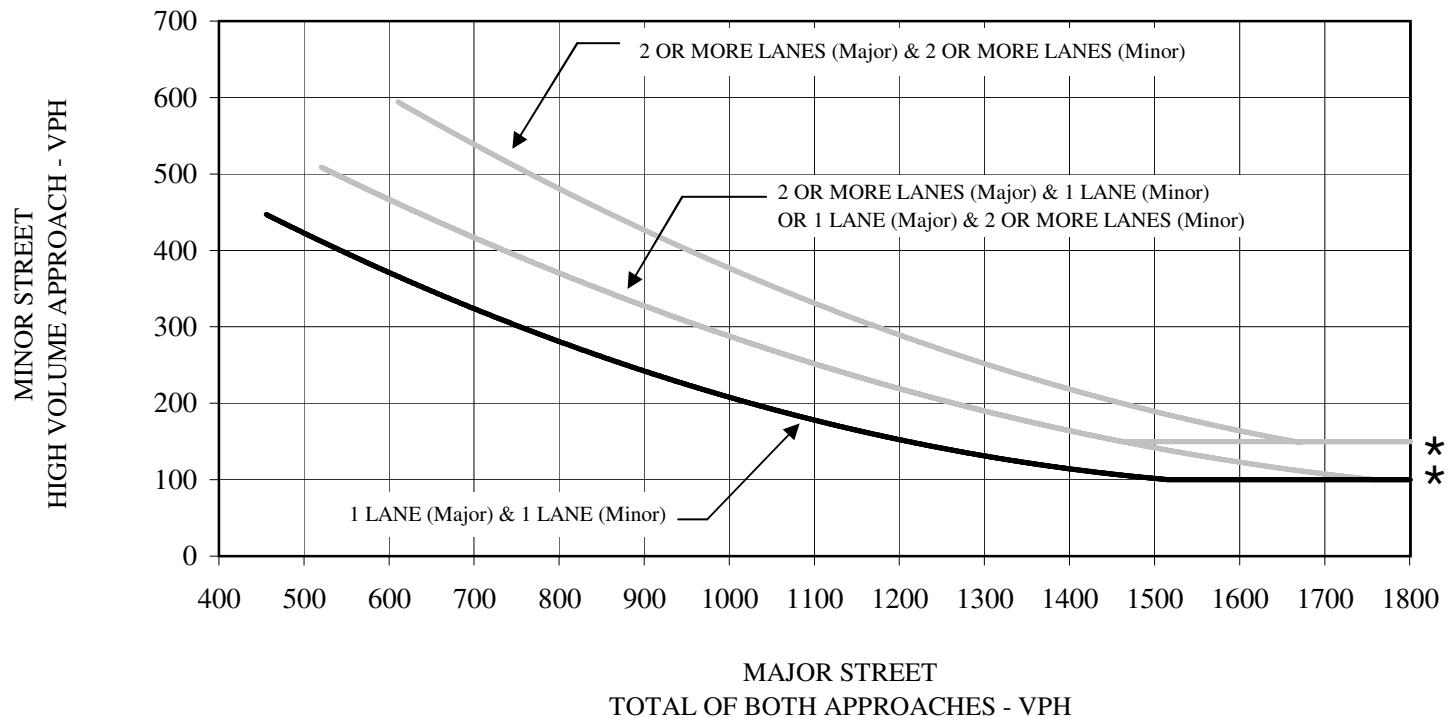
2Way95thQ:	xxxx	xxxx	xxxxx	0.9	xxxx	0.6	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	18.4	xxxx	9.7	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	C	*	A	A	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	xxxxxx				12.7		xxxxxx		xxxxxx		xxxxxx				
ApproachLOS:	*				B		*		*		*				

Note: Queue reported is the number of cars per lane.

APPENDIX E

SIGNAL WARRANT WORKSHEETS

SIGNAL WARRANT 3



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

L S A

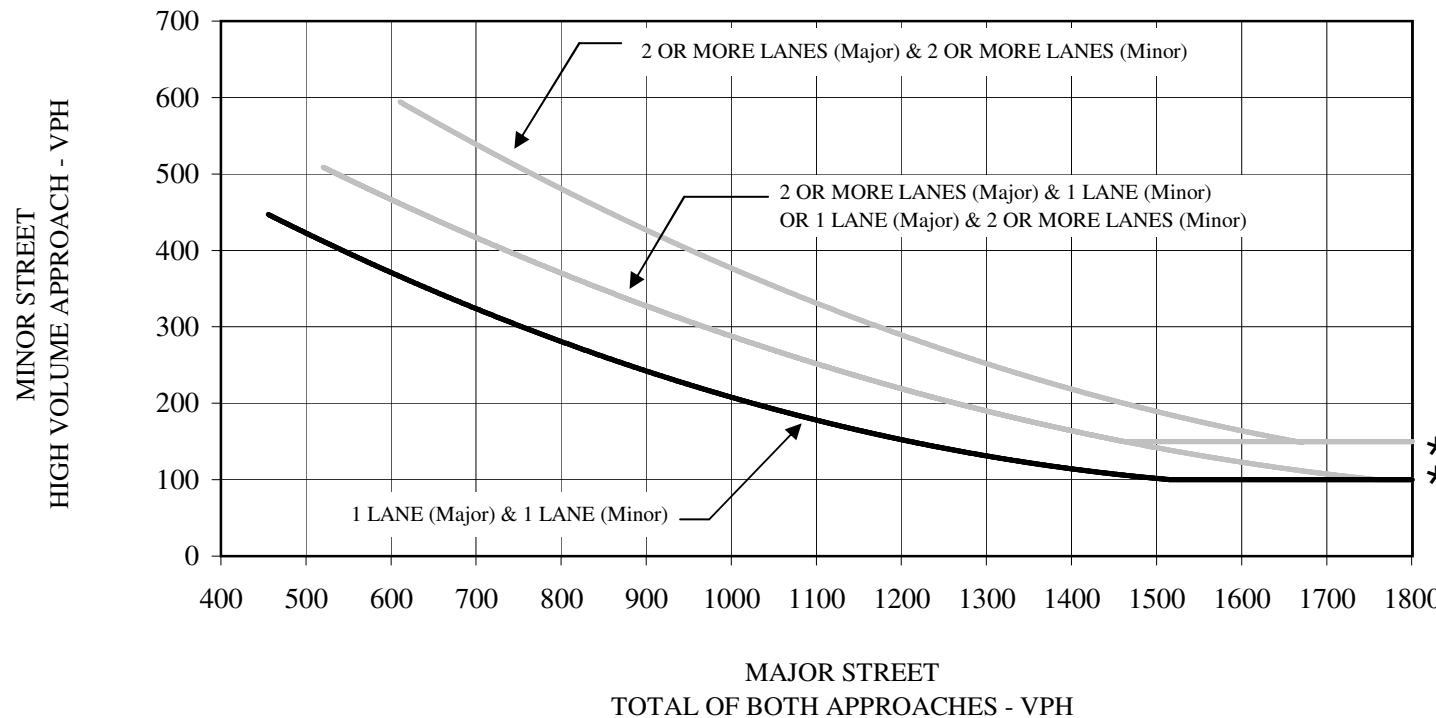
- AM PEAK HOUR
- PM PEAK HOUR

EXHIBIT E-1

SOURCE: CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Cumulative (2015) Plus Project Peak Hour Warrant

SIGNAL WARRANT 3



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

L S A

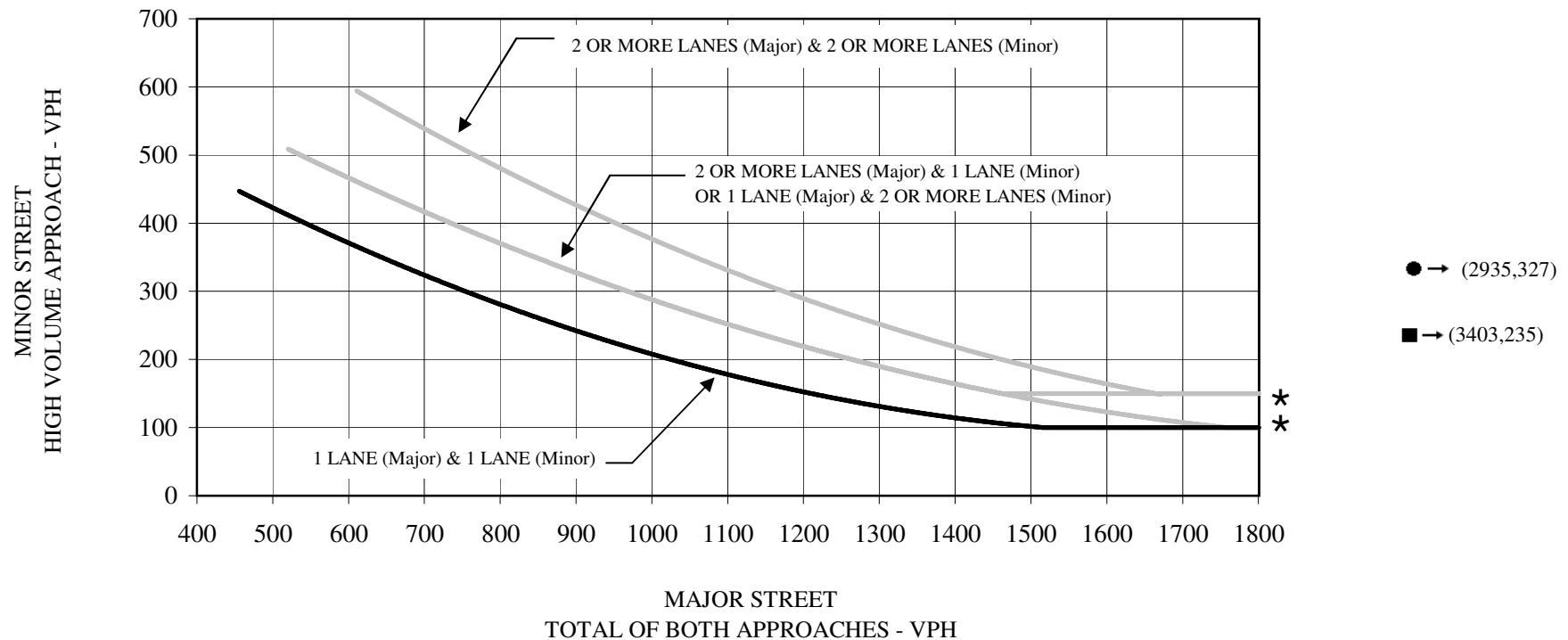
- AM PEAK HOUR
- PM PEAK HOUR

EXHIBIT E-2

SOURCE: CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Cumulative (2015) Plus Project Peak Hour Warrant

SIGNAL WARRANT 3



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes
and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

L S A

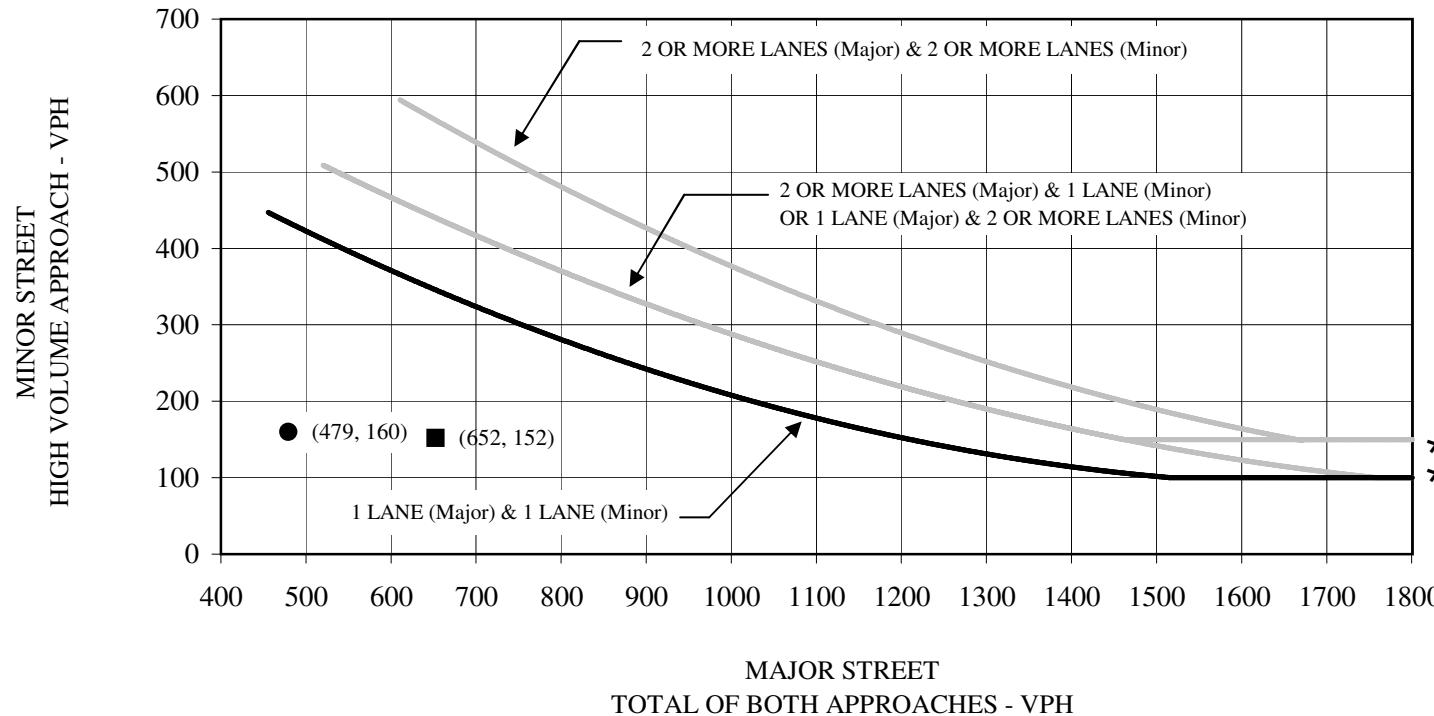
- AM PEAK HOUR
- PM PEAK HOUR

EXHIBIT E-3

SOURCE: CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Cumulative (2015) Plus Project Peak Hour Warrant

SIGNAL WARRANT 3



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

L S A

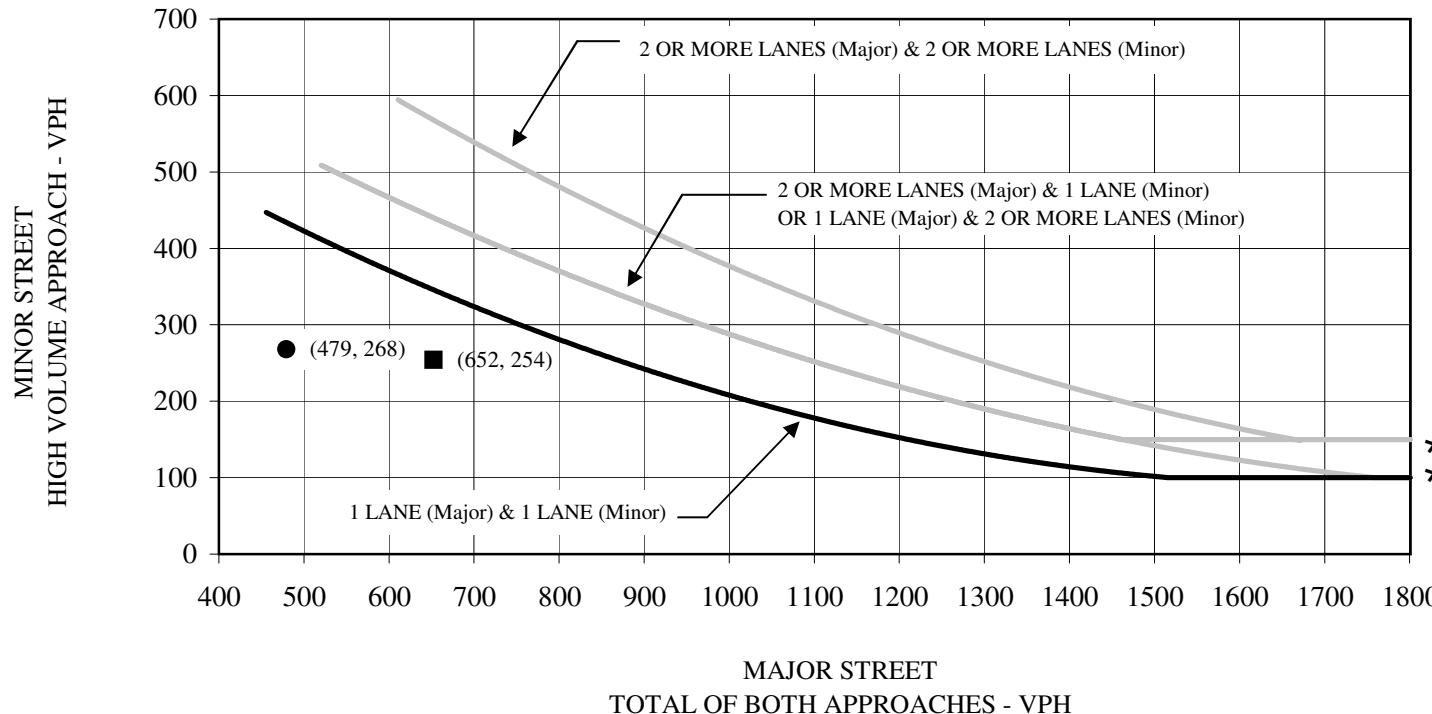
- AM PEAK HOUR
- PM PEAK HOUR

EXHIBIT E-4

SOURCE: CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Shea Baker Ranch
Project driveway/Rancho Parkway
Cumulative (2015) Plus Project Peak Hour Warrant

SIGNAL WARRANT 3



★ 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes
and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

L S A

- AM PEAK HOUR
- PM PEAK HOUR

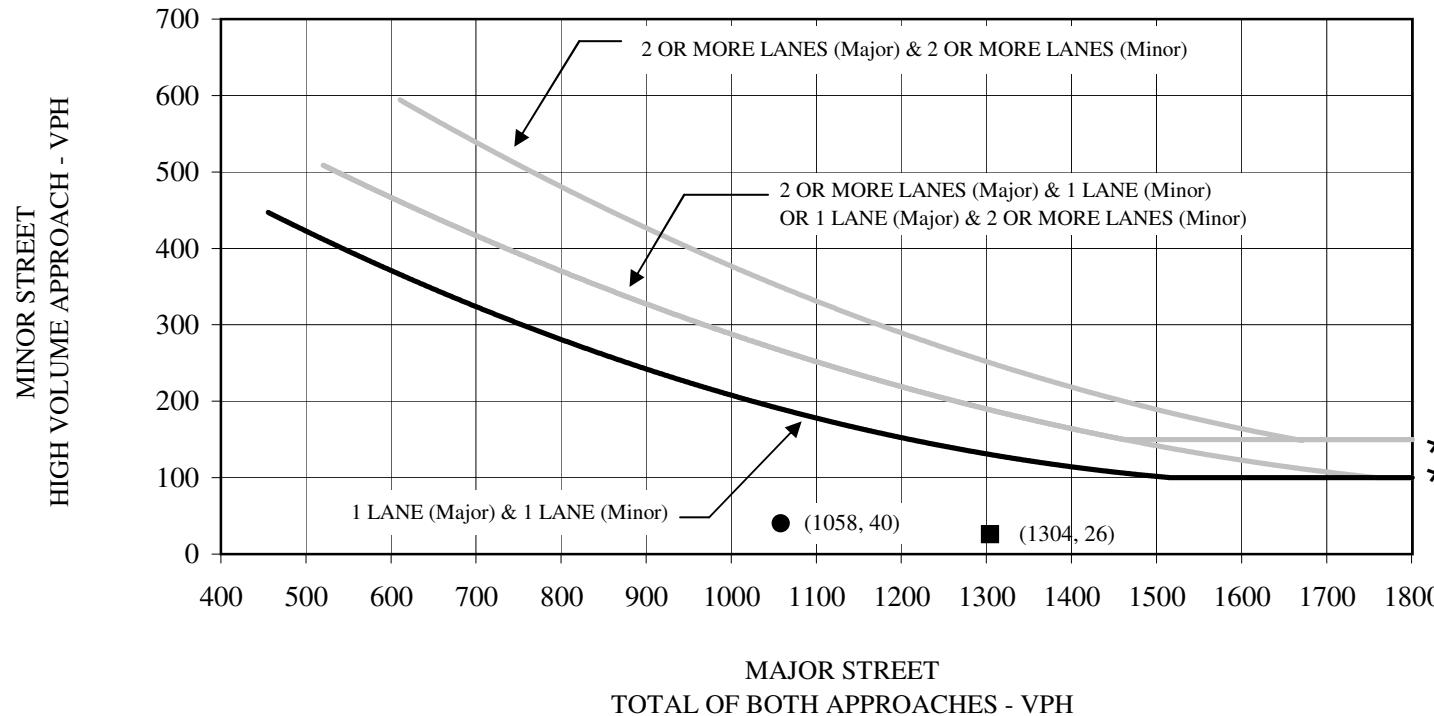
EXHIBIT E-5

SOURCE: CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

P:\SHO1002\Tables\Dwy-Rancho2.xls (5/18/2011)

Shea Baker Ranch
Project driveway/Rancho Parkway
No Alton Access Peak Hour Warrant

SIGNAL WARRANT 3



* 150 VPH applies as the lower threshold volume for a minor street approach with two or more lanes
and 100 VPH applies as the lower threshold volume for a minor street approaching with one lane.

L S A

- AM PEAK HOUR
- PM PEAK HOUR

EXHIBIT E-6

SOURCE: CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, FIGURE 4C-3

Shea Baker Ranch
Project driveway/Commercentre Drive
Cumulative (2015) Plus Project Peak Hour Warrant

APPENDIX F

ICU WORKSHEETS

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Alton Pkwy/Retail Access

Cycle (sec): 100 Critical Vol./Cap. (X): 0.433
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 21 Level Of Service: A

Street Name: Alton Parkway Retail Access
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 1 0 3 0 0 0 0 0 0 0 1

Volume Module:
 Base Vol: 0 700 0 0 1670 0 0 0 0 0 0 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 700 0 0 1670 0 0 0 0 0 0 0 0 0 0
 Added Vol: 0 321 21 19 110 0 0 0 0 0 57 0 51
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 1021 21 19 1780 0 0 0 0 0 57 0 51
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1021 21 19 1780 0 0 0 0 0 57 0 51
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1021 21 19 1780 0 0 0 0 0 57 0 51
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1021 21 19 1780 0 0 0 0 0 57 0 51

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00
 Final Sat.: 0 5100 1700 1700 5100 0 0 0 0 0 1700 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.20 0.01 0.01 0.35 0.00 0.00 0.00 0.00 0.03 0.00 0.03
 Crit Moves: **** ***** *****

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Alton Pkwy/A Street

Cycle (sec): 100 Critical Vol./Cap. (X): 0.571
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 27 Level Of Service: A

Street Name: Alton Parkway A Street
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 0 1 0 1 0 0 1 0 1 0 0 1 0

Volume Module:
 Base Vol: 0 810 0 0 1670 0 0 0 0 0 0 0 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 810 0 0 1670 0 0 0 0 0 0 0 0 0 0 0
 Added Vol: 35 156 28 44 151 28 83 47 104 84 16 117
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 35 966 28 44 1821 28 83 47 104 84 16 117
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 35 966 28 44 1821 28 83 47 104 84 16 117
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 35 966 28 44 1821 28 83 47 104 84 16 117
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 35 966 28 44 1821 28 83 47 104 84 16 117

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.92 0.08 1.00 2.95 0.05 1.00 0.31 0.69 1.00 0.12 0.88
 Final Sat.: 1700 4956 144 1700 5023 77 1700 529 1171 1700 205 1495

Capacity Analysis Module:
 Vol/Sat: 0.02 0.19 0.19 0.03 0.36 0.36 0.05 0.09 0.09 0.09 0.05 0.08 0.08
 Crit Moves: **** **** **** ****

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Alton Pkwy/B Street

Cycle (sec): 100 Critical Vol./Cap. (X): 0.575
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 27 Level Of Service: A

Street Name: Alton Parkway B Street

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 0 1 0	1 0 0 1 0

Volume Module:

Base Vol:	0 810 0 0 1670 0 0 0 0 0 0 0 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 810 0 0 1670 0 0 0 0 0 0 0 0
Added Vol:	17 114 47 21 303 14 40 23 51 140 8 65
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	17 924 47 21 1973 14 40 23 51 140 8 65
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:	17 924 47 21 1973 14 40 23 51 140 8 65
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	17 924 47 21 1973 14 40 23 51 140 8 65
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:	17 924 47 21 1973 14 40 23 51 140 8 65

Saturation Flow Module:

Sat/Lane:	1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	1.00 2.85 0.15 1.00 2.98 0.02 1.00 0.31 0.69 1.00 0.11 0.89
Final Sat.:	1700 4853 247 1700 5064 36 1700 528 1172 1700 186 1514

Capacity Analysis Module:

Vol/Sat:	0.01 0.19 0.19 0.01 0.39 0.39 0.02 0.04 0.04 0.04 0.08 0.04 0.04
Crit Moves:	**** **** * **** *

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Alton Pkwy/Retail Access

Cycle (sec): 100 Critical Vol./Cap. (X): 0.479
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 23 Level Of Service: A

Street Name: Alton Parkway Retail Access
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 1 0 3 0 0 0 0 0 0 0 1

Volume Module:
 Base Vol: 0 1600 0 0 1040 0 0 0 0 0 0 0 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1600 0 0 1040 0 0 0 0 0 0 0 0 0 0 0
 Added Vol: 0 227 75 67 352 0 0 0 0 0 0 54 0 48
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 1827 75 67 1392 0 0 0 0 0 0 54 0 48
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1827 75 67 1392 0 0 0 0 0 0 54 0 48
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1827 75 67 1392 0 0 0 0 0 0 54 0 48
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1827 75 67 1392 0 0 0 0 0 0 54 0 48

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 1.00
 Final Sat.: 0 5100 1700 1700 5100 0 0 0 0 0 1700 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.36 0.04 0.04 0.27 0.00 0.00 0.00 0.00 0.03 0.00 0.03
 Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Alton Pkwy/A Street

Cycle (sec): 100 Critical Vol./Cap. (X): 0.602
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 29 Level Of Service: B

Street Name: Alton Parkway A Street

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 0 1 0	1 0 0 1 0

Volume Module:

Base Vol:	0 1580	0 0	1110 0	0 0	0 0	0 0	0 0	0 0	0 0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	0 1580	0 0	1110 0	0 0	0 0	0 0	0 0	0 0	0 0
Added Vol:	106 225	86 123	231 85	55 31	69 55	48 82			
PasserByVol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Initial Fut:	106 1805	86 123	1341 85	55 31	69 55	48 82			
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Volume:	106 1805	86 123	1341 85	55 31	69 55	48 82			
Reducet Vol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Reduced Vol:	106 1805	86 123	1341 85	55 31	69 55	48 82			
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
FinalVolume:	106 1805	86 123	1341 85	55 31	69 55	48 82			

Saturation Flow Module:

Sat/Lane:	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700
Adjustment:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	1.00 2.86	0.14 1.00	2.82 0.18	0.31 0.69	0.37 1.00	0.63 1.00			
Final Sat.:	1700 4868	232 1700	4796 304	527 1173	628 1700	1072			

Capacity Analysis Module:

Vol/Sat:	0.06 0.37	0.37 0.07	0.28 0.28	0.03 0.06	0.06 0.06	0.03 0.08	0.08 0.08
Crit Moves:	****	****	****	****	****	****	****

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Alton Pkwy/B Street

Cycle (sec): 100 Critical Vol./Cap. (X): 0.585
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 28 Level Of Service: A

Street Name: Alton Parkway

B Street

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Alton Pkwy/Retail Access

Cycle (sec): 100 Critical Vol./Cap. (X): 0.648
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 32 Level Of Service: B

Street Name: Alton Parkway Retail Access
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 1 0 3 0 0 0 0 0 0 0 1

Volume Module:
 Base Vol: 0 840 0 0 2770 0 0 0 0 0 0 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 840 0 0 2770 0 0 0 0 0 0 0 0 0 0
 Added Vol: 0 321 21 19 110 0 0 0 0 0 57 0 51
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 1161 21 19 2880 0 0 0 0 0 57 0 51
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1161 21 19 2880 0 0 0 0 0 57 0 51
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1161 21 19 2880 0 0 0 0 0 57 0 51
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1161 21 19 2880 0 0 0 0 0 57 0 51

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00
 Final Sat.: 0 5100 1700 1700 5100 0 0 0 0 0 1700 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.23 0.01 0.01 0.56 0.00 0.00 0.00 0.00 0.03 0.00 0.03
 Crit Moves: **** ***** *****

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Alton Pkwy/A Street

Cycle (sec): 100 Critical Vol./Cap. (X): 0.764
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 45 Level Of Service: C

Street Name: Alton Parkway A Street
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 0 1 0 1 0 0 1 0

Volume Module:
 Base Vol: 0 990 0 0 2650 0 0 0 0 0 0 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 990 0 0 2650 0 0 0 0 0 0 0 0 0 0
 Added Vol: 35 156 28 44 151 28 83 47 104 84 16 117
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 35 1146 28 44 2801 28 83 47 104 84 16 117
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 35 1146 28 44 2801 28 83 47 104 84 16 117
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 35 1146 28 44 2801 28 83 47 104 84 16 117
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 35 1146 28 44 2801 28 83 47 104 84 16 117

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.93 0.07 1.00 2.97 0.03 1.00 0.31 0.69 1.00 0.12 0.88
 Final Sat.: 1700 4978 122 1700 5050 50 1700 529 1171 1700 205 1495

Capacity Analysis Module:
 Vol/Sat: 0.02 0.23 0.23 0.03 0.55 0.55 0.05 0.09 0.09 0.09 0.05 0.08 0.08
 Crit Moves: **** **** * **** *

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Alton Pkwy/B Street

Cycle (sec): 100 Critical Vol./Cap. (X): 0.768
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 46 Level Of Service: C

Street Name: Alton Parkway B Street

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 0 1 0	1 0 0 1 0

Volume Module:

Base Vol:	0 990 0 0 2650 0 0 0 0 0 0 0 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 990 0 0 2650 0 0 0 0 0 0 0 0
Added Vol:	17 114 47 21 303 14 40 23 51 140 8 65
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	17 1104 47 21 2953 14 40 23 51 140 8 65
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:	17 1104 47 21 2953 14 40 23 51 140 8 65
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	17 1104 47 21 2953 14 40 23 51 140 8 65
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:	17 1104 47 21 2953 14 40 23 51 140 8 65

Saturation Flow Module:

Sat/Lane:	1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	1.00 2.88 0.12 1.00 2.99 0.01 1.00 0.31 0.69 1.00 0.11 0.89
Final Sat.:	1700 4892 208 1700 5076 24 1700 528 1172 1700 186 1514

Capacity Analysis Module:

Vol/Sat:	0.01 0.23 0.23 0.01 0.58 0.58 0.02 0.04 0.04 0.04 0.08 0.04 0.04
Crit Moves:	**** **** * **** *

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Alton Pkwy/Retail Access

Cycle (sec): 100 Critical Vol./Cap. (X): 0.672
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 34 Level Of Service: B

Street Name: Alton Parkway Retail Access
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 3 0 1 1 0 3 0 0 0 0 0 0 0 1

Volume Module:
 Base Vol: 0 2580 0 0 1390 0 0 0 0 0 0 0 0 0 0 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 2580 0 0 1390 0 0 0 0 0 0 0 0 0 0 0
 Added Vol: 0 227 75 67 352 0 0 0 0 0 0 54 0 48
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 2807 75 67 1742 0 0 0 0 0 0 54 0 48
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 2807 75 67 1742 0 0 0 0 0 0 54 0 48
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 2807 75 67 1742 0 0 0 0 0 0 54 0 48
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 2807 75 67 1742 0 0 0 0 0 0 54 0 48

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00
 Final Sat.: 0 5100 1700 1700 5100 0 0 0 0 0 1700 0 1700

Capacity Analysis Module:
 Vol/Sat: 0.00 0.55 0.04 0.04 0.34 0.00 0.00 0.00 0.00 0.03 0.00 0.03
 Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Alton Pkwy/A Street

Cycle (sec): 100 Critical Vol./Cap. (X): 0.782
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxxx
 Optimal Cycle: 49 Level Of Service: C

Street Name: Alton Parkway A Street

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 0 1 0	1 0 0 1 0

Volume Module:

Base Vol:	0 2500	0 0	1490 0	0 0 0	0 0 0	0 0 0	0 0 0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	0 2500	0 0	1490 0	0 0 0	0 0 0	0 0 0	0 0 0
Added Vol:	106 225	86 123	231 85	55 31	69 55	48 82	
PasserByVol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Initial Fut:	106 2725	86 123	1721 85	55 31	69 55	48 82	
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	106 2725	86 123	1721 85	55 31	69 55	48 82	
Reducet Vol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Reduced Vol:	106 2725	86 123	1721 85	55 31	69 55	48 82	
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	106 2725	86 123	1721 85	55 31	69 55	48 82	

Saturation Flow Module:

Sat/Lane:	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700
Adjustment:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	1.00 2.91	0.09 1.00	2.86 0.14	0.31 0.69	1.00 0.37	0.63 0.63	
Final Sat.:	1700 4944	156 1700	4860 240	527 1173	1700 628	1072 1072	

Capacity Analysis Module:

Vol/Sat:	0.06 0.55	0.55 0.07	0.35 0.35	0.03 0.06	0.06 0.06	0.03 0.08	0.08 0.08
Crit Moves:	****	****	****	****	****	****	****

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Alton Pkwy/B Street

Cycle (sec): 100 Critical Vol./Cap. (X): 0.765
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 46 Level Of Service: C

Street Name: Alton Parkway B Street

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 2 1 0	1 0 2 1 0	1 0 0 1 0	1 0 0 1 0

Volume Module:

Base Vol:	0 2500	0 0	0 1490	0 0	0 0	0 0	0 0	0 0	0 0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	0 2500	0 0	0 1490	0 0	0 0	0 0	0 0	0 0	0 0
Added Vol:	52 347	155 73	241 41	27 15	34 93	23 43			
PasserByVol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Initial Fut:	52 2847	155 73	1731 41	27 15	34 93	23 43			
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Volume:	52 2847	155 73	1731 41	27 15	34 93	23 43			
Reducet Vol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Reduced Vol:	52 2847	155 73	1731 41	27 15	34 93	23 43			
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
FinalVolume:	52 2847	155 73	1731 41	27 15	34 93	23 43			

Saturation Flow Module:

Sat/Lane:	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700	1700 1700
Adjustment:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	1.00 2.85	0.15 1.00	2.93 0.07	0.31 0.69	1.00 0.35	0.35 0.65			
Final Sat.:	1700 4837	263 1700	4982 118	520 1180	1700 1180	592 1108			

Capacity Analysis Module:

Vol/Sat:	0.03 0.59	0.59 0.04	0.35 0.35	0.02 0.03	0.03 0.03	0.05 0.05	0.04 0.04	0.04 0.04
Crit Moves:	****	****		****	****			